

Energy Tidbits

Barclays CEO: "The world and the world economy cannot go cold turkey on this [Oil, Natural Gas] tomorrow"

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Table 1. Summary of natural gas supply and disposition in the United States, 2019-2024

billion cubic feet

Year and month	Gross withdrawals	Marketed production pr	NGPL oduction ^a	Dry gas production ^b	Supplemental gaseous fuels ^c	Net imports	Net storage withdrawals ^d	Balancing item ^e	Consumption ^f
2019 total	40,780	36,447	2,548	33,899	61	-1,916	-503	-408	31,132
2020 total	40,730	36,521	2,710	33,811	63	-2,734	-180	-357	30,603
2021 total	41,677	37,338	2,809	34,529	66	-3,845	83	-188	30,646
2022									
January	3,628	3,235	252	2,983	6	-315	1,013	-95	3,593
February	3,266	2,914	227	2,687	5	-288	673	-17	3,059
March	3,663	3,282	256	3,026	6	-380	171	-43	2,781
April	3,568	3,199	250	2,950	6	-342	-220	-33	2,360
May	3,695	3,332	260	3,072	6	-386	-412	-39	2,241
June	3,565	3,232	252	2,980	6	-325	-332	-13	2,317
July	3,736	3,375	263	3,112	6	-303	-187	-46	2,583
August	3,730	3,392	265	3,128	6	-322	-213	-39	2,559
September	3,669	3,330	260	3,071	6	-293	-446	-50	2,288
October	3,814	3,438	268	3,170	6	-315	-432	-66	2,364
November	3,712	3,327	259	3,067	6	-308	78	-77	2,767
December	3,755	3,370	263	3,107	6	-304	588	-21	3,376
Total	43,802	39,428	3,075	36,353	73	-3,880	281	-539	32,288
2023									
January	€3,820	€3,429	270	€3,159	7	-333	456	15	R3,304
February	€3,456	€3,103	247	€2,856	6	-331	399	19	₹2,948 R
March	€3 <i>,</i> 858	€3,475	286	€3,189	6	-401	224	-5	3,014
April	€3,729	€3,362	283	€3,079	5	-400	-269	5	2,421
May	€3,869	€3,500	289	€3,210	6	-422	-452	-27	2,315
June	€3,720	€3,375	278	€3 <i>,</i> 098	4	-376	-344	R-19	2,363
July	€3 <i>,</i> 827	€3,495	290	€3,205	6	-378	-134	r-34	2,666
August	€3,850	€3,534	294	€3,240	5	-388	-133	-51	2,673
September	€3,761	€3,426	291	€3,135	3	-396	-323	-46	2,373
October	€3,909	€3,537	302	⊧3,235	3	-421	-321	-58	2,438
November	€3,841	€3,469	292	€3,177	5	-403	65	-21	R2,822
December	€3,994	⊧3,592	292	€3,300	6	-432	284	11	3,169
Total	⊧45,633	⊧41,296	3,413	⊧37,883	63	-4,681	-548	-211	R32,506
2024									
January	 €3,872	 €3,480	269	⊧3,211	6	-350	844	R-14	R3,695
February	re3,723	re3,349	276	re3,073	5	-385	262	R12	R2,968
March	re3,882	re3,489	303	re3,186	6	r-424	48	R-23	R2,793
April	€3,714	⊧3,350	301	€3,049	6	-345	-258	-58	2,395
2024 4-month YTD	⊧15,190	 €13,668	1,148	 €12,519	23	-1,504	896	-83	11,851
2023 4-month YTD	⊧14,863	 ∎13,368	1,085	 €12,283	25	-1,465	810	34	11,687
2022 4-month YTD	14,126	12,631	985	11,646	23	-1,325	1,636	-188	11,793

^a We derive monthly natural gas plant liquid (NGPL) production, gaseous equivalent, from sample data reported by gas processing plants on Form EIA-816, Monthly Natural Gas Liquids Report, and Form EIA-64A, Annual Report of the Origin of Natural Gas Liquids Production.

^b Equal to marketed production minus NGPL production.

^c We only collect supplemental gaseous fuels data on an annual basis except for the Dakota Gasification Co. coal gasification facility, which provides data each month. We calculate the ratio of annual supplemental fuels (excluding Dakota Gasification Co.) to the sum of dry gas production, net imports, and net withdrawals from storage. We apply this ratio to the monthly sum of these three elements. We add the Dakota Gasification Co. monthly value to the result to produce the monthly supplemental fuels estimate.

^d Monthly and annual data for 2019 through 2022 include underground storage and liquefied natural gas storage. Data for January 2023 forward include underground storage only. Appendix A, Explanatory Note 5, contains a discussion of computation procedures.

^e Represents quantities lost and imbalances in data due to differences among data sources. Net imports and balancing item excludes net intransit deliveries. These net intransit deliveries were (in billion cubic feet): 91 for 2022; 184 for 2021; 207 for 2020; and -8 for 2019. Appendix A, Explanatory Note 7, contains a full discussion of balancing item calculations.

^f Consists of pipeline fuel use, lease and plant fuel use, vehicle fuel, and deliveries to consuming sectors as shown in Table 2.

^R Revised data.

RE Revised estimated data.

^E Estimated data.

Source: 2019-2022: U.S. Energy Information Administration (EIA), *Natural Gas Annual 2022*. January 2023 through current month: Form EIA-914, *Monthly Crude Oil and Lease Condensate, and Natural Gas Production Report;* Form EIA-857, *Monthly Report of Natural Gas Purchases and Deliveries to Consumers;* Form EIA-191, *Monthly Underground Gas Storage Report;* EIA computations and estimates; and Office of Fossil Energy and Carbon Management, *Natural Gas Imports and Exports.* Table 7 includes detailed source notes for Marketed Production. Appendix A, Notes 3 and 4, includes discussion of computation and estimation procedures and revision policies.

Note: Data for 2019 through 2022 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 states and the District of Columbia. Totals may not equal sum of components because of independent rounding.

volumes in million cubic feet; prices in dollars per thousand cubic feet

	2024 4-month	2023 4-month	2022 4-month				2024
	YTD	YTD	YTD	April	March	February	January
exports							
Volume (million cubic feet)							
Pipeline							
Canada	396,392	382,966	341,756	73,117	116,204	114,539	92,532
Mexico	726,566	665,667	676,831	190,161	181,856	169,473	185,076
Total pipeline exports	1,122,958	1,048,633	1,018,587	263,278	298,060	284,012	₽277,607
LNG							
Exports							
By vessel	17	10	<u> </u>	F	-2		
Antigua and Barbuda	17	10	6	5	R3	R7	2
Argentina	8,674	16,166	9,933	8,674	0	0	0
Bahamas	150	165 3,369	142	39	35	34	42
Bangladesh Barbados	6,569 104	3,309	9,317 92	3,289 16	3,281	0 37	0 22
					29	· · · · · · · · · · · · · · · · · · ·	
Belgium	<u> </u>	23,860	46,562 33,665	3,247	6,899	9,386	14,255 8,292
Brazil Chile		4,932	9,906	1,364	0	6,180	
China	19,098	29,019	21,101	5,441	6,439 17,376	3,522	3,696
Colombia	51,656 21,984	29,019	486	10,025 1,444	7,974	16,312 6,101	6,465
Croatia	21,984 23,042	15,776	25,074	1,444	10,202	3,377	9,464
Dominican Republic	30,866	14,934	16,822	11,720	4,552	7,106	7,489
El Salvador	30,866	14,934	10,822	0	4,552	7,108	7,489
Finland	3,215	6,462	0	3,215	0	0	0
France	175.655	155,373	210,489	37,672	60,572	49,363	28,049
Germany	72,625	65,930	210,489	21,479	17,060	16,715	17,371
Greece	13.530	17,049	15,348	0	3,240	3,136	7,153
Haiti	25	38	57	3	3,240	5,130	16
India	58,900	45,837	38,736	20,843	13,842	13,530	10,685
Indonesia	0	805	717	0	15,642	13,550	10,003
Italy	60,519	55,556	43,273	14,040	10,256	11,455	24,767
Jamaica	7,173	839	424	3	10,230 R3	R590	6,576
Japan	93,317	65,544	62,669	22,227	28,923	22,827	19,340
Jordan	7,129	0	02,005	3,652	3,477	0	0
Kuwait	10,382	3,707	12,575	0	7,207	3,175	0
Lithuania	11,898	13,724	26,119	0	3,641	7,174	1,083
Malta	0	2,592	2,345	Ū	0	0	,000
Mexico	87	6,270	0	Ö	0	87	0
Netherlands	192,030	197,006	101,186	47,486	57,169	45,501	41,873
Pakistan	0	0	3,074	0	0	0	0
Panama	11,116	5,927	7,861	3,991	3,448	0	3,677
Philippines	0	0	0	0	0	0	0
Poland	23,709	36,286	28,884	3,576	3,685	10,702	5,746
Portugal	28,288	23,323	23,931	6,469	2,932	9,384	9,503
Singapore	20,693	0	6,725	3,617	7,031	6,851	3,194
South Korea	75,312	82,720	82,416	17,457	21,023	16,193	20,640
Spain	84,449	97,900	188,220	10,127	21,849	13,660	38,812
Taiwan	43,426	30,112	34,028	13,347	10,374	13,151	6,555
Thailand	50,792	14,041	8,370	19,342	14,737	8,809	7,904
Turkiye	75,167	78,501	112,044	3,057	8,963	20,454	42,693
United Kingdom	97,596	281,068	181,935	6,887	13,663	34,117	42,928
By truck							
Canada	8	13	32	8	0	0	0
Mexico	61	393	570	14	12	14	21
Re-exports							
By vessel							
United Kingdom	607	0	0	0	0	607	C
Total LNG exports	1,429,497	1,405,825	1,365,135	303,776	R369,898	R359,563	396,260
CNG							
Canada	0	1	*	0	0	0	0
Total CNG exports	0	1	*	0	0	0	0
Total exports	2,552,454	2,454,459	2,383,723	567,054	№667,958	№643,575	673,868

volumes in million cubic feet; prices in dollars per thousand cubic feet - continued

				a	<u> </u>	• •	2023
	Total	December	November	October	September	August	July
xports							
Volume (million cubic feet)							
Pipeline							
Canada	1,026,097	111,869	89,446	66,936	76,619	68,390	76,567
Mexico	2,241,553	174,602	179,002	200,466	202,402	213,050	208,625
Total pipeline exports	3,267,651	286,471	268,448	267,402	279,021	281,440	285,193
LNG							
Exports							
By vessel							
Antigua and Barbuda	47	6	4	7	7	5	4
Argentina	76,921	0	0	0	0	0	11,162
Bahamas	499	32	34	34	51	47	47
Bangladesh	24,147	3,257	3,240	0	0	7,095	C
Barbados	11	11	0	0	0	0	C
Belgium	97,017	14,272	10,288	20,775	13,697	3,363	C
Brazil	38,595	3,708	3,563	3,720	6,561	3,287	C
Chile	31,217	0	0	0	0	3,065	7,144
China	173,247	13,949	25,601	18,013	10,222	14,252	35,337
Colombia	32,014	7,162	1,844	6,689	10,322	3,149	C
Croatia	55,439	3,050	9,995	0	10,542	3,023	10,121
Dominican Republic	73,761	3,177	8,647	8,826	6,734	10,055	6,076
El Salvador	1	0	0	0	0	0	1
Finland	38,469	2,762	3,335	0	7,057	6,630	3,666
France	₽492,906	40,692	58,907	54,072	32,016	34,332	20,589
Germany	204,605	19,439	14,382	17,901	17,228	20,709	17,245
Greece	39,426	8,287	0	0	1,968	4,700	C
Haiti	113	13	8	8	10	9	8
India	164,325	17,062	7,441	13,698	24,452	13,713	20,494
Indonesia	3,157	0	0	0	489	766	1,097
Italy	R197,816	21,283	23,786	6,850	22,094	21,519	13,923
Jamaica	9,048	480	122	1,831	4,038	3	1,443
Japan	310,190	27,461	24,896	24,357	33,375	31,302	44,016
Jordan	3,282	0	0	0	0	0	3,282
Kuwait	35,185	0	0	0	6,636	3,289	7,081
Lithuania	55,332	3,409	0	6,476	10,666	7,005	3,375
Malta	2,592	0	0	0	0	0	C
Mexico	13,661	3,660	0	1,776	0	0	1,954
Netherlands	588,557	48,658	36,150	49,701	39,745	53,596	53,296
Pakistan	3,141	3,141	0	0	0	0	C
Panama	19,565	328	3,530	0	3,196	0	3,295
Philippines	6,823	0	3,445	3,378	0	0	Ć
Poland	139,635	10,862	14,500	14,213	14,121	10,550	3,635
Portugal	R72,856	2,945	3,204	7,125	R6,135	6,660	9,845
Singapore	23,320	0	0	3,279	6,649	3,384	C
South Korea	275,779	35,187	26,140	28,224	24,112	34,932	16,462
Spain	R269,504	15,629	17,280	49,792	R10,234	20,023	34,106
Taiwan	104,075	6,655	3,104	6,686	13,201	14,117	13,090
Thailand	59,477	3,818	7,581	7,538	0	14,793	7,463
Turkiye	156,403	42,304	27,560	4,507	3,531	0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
United Kingdom	450,181	60,209	47,642	24,900	7,464	3,655	Č
By truck		00,200		_ 1,500	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0,000	
Canada	85	7	7	0	16	8	8
Mexico	604	20	26	27	35	19	25
Re-exports							
By vessel							
United Kingdom	0	0	0	0	0	0	C
Total LNG exports	4,343,027	422,935	386,262	384,403	346,604	353,059	349,292
CNG	.,===;==;	,	000,202		0.3,004	,000	243,232
Canada	1	0	0	0	0	0	C
Total CNG exports	<u>1</u>	0	0	0	0	0	
							634,485
Total exports	7,610,678	709,406	654,710	651,805	625,625	634,499	634

volumes in million cubic feet; prices in dollars per thousand cubic feet - continued

						2023	2022
	June	May	April	March	February	January	Tota
kports							
Volume (million cubic feet)							
Pipeline							
Canada	75,320	77,984	75,674	106,178	95,691	105,422	959,630
Mexico	204,115	193,623	169,179	177,653	152,807	166,028	2,078,627
Total pipeline exports LNG	279,435	271,608	244,853	283,832	248,498	271,450	3,038,257
Exports							
By vessel							
Antigua and Barbuda	3	3	3	2	2	4	22
Argentina	22,663	26,930	11,536	2,343	2,287	0	66,939
Bahamas	45	45	43	53	27	42	489
Bangladesh	3,624	3,561	0	0	0	3,369	12,663
Barbados	0	0	0	0	0	0	93
Belgium	6,953	3,809	4,844	8,053	7,322	3,640	80,245
Brazil	8,628	4,196	3,598	1,334	0	0	71,998
Chile	4,011	6,419	0	7,271	0	3,307	30,131
China	20,261	6,593	3,426	5,132	2,565	17,896	96,659
Colombia	0	2,847	0	0	0	0	5,703
Croatia	0	2,932	3,163	3,694	6,006	2,913	77,286
Dominican Republic El Salvador	7,443	7,871	6,901	876 0	3,514	3,643	50,824
Finland	-	6 025	0	6,462	0	0	329
France	1,622 45,569	6,935 R51,355	53,211	28,581	39.457	34,124	571,399
Germany	15,769	16.002	18,546	24,841	8,229	14,314	7,113
Greece	2,924	4,498	3,905	3,156	6,781	3,207	69,031
Haiti	6	12		3,130	11	3,207	115
India	14,488	7,140	14,585	10,230	14,064	6,956	122,518
Indonesia	14,400	0	0	0	0	805	6,579
Italy	13,959	R18,845	17,378	13,699	17,555	6,925	116,034
Jamaica		289	31	540	161	107	1,516
Japan	28,031	31.208	13,687	20,102	14,058	17,696	209,220
Jordan	0	0	0	0	0	0	
Kuwait	10,670	3,802	3,707	0	0	0	57,018
Lithuania	3,629	7,048	3,412	3,599	0	6,713	77,212
Malta	0	0	0	0	0	2,592	5,273
Mexico	0	0	0	3,051	0	3,219	3,832
Netherlands	45,866	64,538	60,234	61,017	39,301	36,453	378,329
Pakistan	0	0	0	0	0	0	3,074
Panama	0	3,289	0	3,209	0	2,718	13,759
Philippines	0	0	0	0	0	0	(
Poland	18,046	17,422	7,165	7,236	10,347	11,538	127,404
Portugal	3,194	10,424	4,237	6,133	6,138	6,816	69,583
Singapore	10,009	0	0	0	0	0	22,980
South Korea	17,044	10,958	24,734	10,807	22,672	24,507	292,732
Spain	12,274	12,266	13,680	38,096	32,138	13,987	426,657
Taiwan	6,848	10,262	9,774	10,311	6,557	3,471	106,738
Thailand	4,242	0	4,225	4,249	1,829	3,738	25,988
Turkiye	0	0	13,908	11,866	13,444	39,283	192,067
United Kingdom	0	25,242	75,836	70,499	71,702	63,032	464,462
By truck	47		-		^	^	
Canada	17	7	7	7	0	0	76
Mexico	34	26	58	96	106	133	1,552
Re-exports							
By vessel	^	0	<u>^</u>	<u> </u>	0	0	
United Kingdom	0	0	0	0 366,552	-	0	2 965 642
Total LNG exports CNG	327,872	366,774	375,843	300,552	326,275	337,155	3,865,643
Canada	0	0	0	*	*	*	
Total CNG exports	0	0	0	*	*	*	2
Total exports	607,307	638,382	620,697	650,384	574,773	608,605	6,903,902
	007,307	030,302	020,097	030,304	5/7,//3	000,000	0,000,002

volumes in million cubic feet; prices in dollars per thousand cubic feet - continued

	December	November	October	September	August	July	June
				•	0	•	
kports Volume (million cubic feet) Pipeline							
Canada	98,718	90,179	72,738	61,926	75,220	69,774	70,105
Mexico	158,638	160,986	171,766	169,159	182,596	189,652	182,995
Total pipeline exports	257,355	251,165	244,505	231,086	257,816	259,426	253,100
LNG	237,333	251,105	244,303	231,080	237,010	233,420	255,100
Exports							
By vessel							
Antigua and Barbuda	1	2	2	3	2	2	3
Argentina	0	0	0	0	2,202	9.448	25,246
Bahamas	42	35	40	43	53	45	47
Bangladesh	0	0	0	0	0	0	Ċ
Barbados	Ő	1	Ő	Ő	Ő	Õ	Č
Belgium	3,274	0	7,190	9,165	3,589	0	7,023
Brazil	0	0	3,439	0	10,542	5,192	3,857
Chile	0	0	0	3,365	0	6,917	0,007
China	6,992	17,308	22,598	10,275	10,272	784	7,329
Colombia	0,552	0	3,699	0	606	0	912
Croatia	6,204	5,122	2,922	9,073	7,824	4,600	7,925
Dominican Republic	6,644	0	3,469	3,196	3,357	6,532	5,838
El Salvador	0	0	0	0	0	0,552	3,030
Finland	329	0	0	0	0	0	
France	38,311	50.655	41,959	57,943	33,885	53,443	37,564
Germany	7,112		0	0	0	0	37,50
Greece	2,869	421	4,424	0	10,763	12,922	9,633
Haiti	2,809	421	4,424	8	10,703	8	13
India	14,139	10,138	7,005	10,528	10,265	13,902	10,653
Indonesia	3,256	505	625	509	967	13,902	10,033
Italy	6,992	3,205	025	8,355	15,462	9,914	7.137
Jamaica	147	137	144	240	15,462	121	48
	20,535	24,396	10,684	7,005	20,156	18,189	21,561
Japan Jordan	20,555	24,390	0	0	20,130	0	21,501
	0	0					
Kuwait Lithuania			3,299 7,072	7,038 3,541	6,415 7,579	5,382 7,947	8,105
	3,281	3,708					6,729
Malta	0 539	2,928 0	0	0	0	0	3,292
Mexico							
Netherlands	39,893	20,645	39,703	30,924	50,020	32,637	34,420
Pakistan	0	0	0	0	0	0	()
Panama	249	3,833	0	0	0	0	623
Philippines	0	0	0	0	0	0	0
Poland	13,885	3,453	7,095	16,917	6,885	17,780	14,282
Portugal	10,025	3,732	7,005	5,806	3,202	6,412	5,582
Singapore	0	0	6,628	0	0	6,275	3,352
South Korea	24,700	14,069	38,844	19,736	36,033	34,342	25,054
Spain	33,847	26,445	26,369	21,263	26,140	34,396	29,639
Taiwan	9,203	3,592	9,041	9,753	8,901	9,353	6,892
Thailand	0	0	0	3,673	3,607	0	6,920
Turkiye	17,979	31,430	10,333	5,458	0	0	7,542
United Kingdom	69,332	76,693	46,040	51,467	21,263	3,797	3,326
By truck							
Canada	8	0	19	0	0	0	8
Mexico	160	153	175	94	103	76	105
Re-exports							
By vessel							
United Kingdom	0	0	0	0	0	0	C
Total LNG exports	339,960	302,608	309,823	295,379	300,215	300,415	300,659
CNG	<u>-</u>						
Canada	0	*	1	*	*	1	*
Total CNG exports	0	*	1	*	*	1	*
Total exports	597,316	553,774	554,328	526,465	558,031	559,842	553,760

volumes in million cubic feet; prices in dollars per thousand cubic feet - continued

					2022
	May	April	March	February	January
ports					
Volume (million cubic feet)					
Pipeline					
Canada	79,214	80,475	105,074	74,630	81,577
Mexico Total pipeline exports	186,003 265,217	176,447 256,922	169,885 274,958	155,032 229,662	175,467 257,045
LNG	205,217	250,922	2/4,990	229,002	257,045
Exports					
By vessel					
Antigua and Barbuda	2	3	2	0	2
Argentina	20,111	9,933	0	0 31	0
Bahamas Bangladesh	42 3,346	<u>34</u> 0	43 3,421	5,896	34 0
Barbados	0	0	34	31	28
Belgium	3,441	7,341	17,743	7,691	13,786
Brazil	15,303	3,448	2,236	10,660	17,322
Chile	9,943	3,530	3,214	0	3,162
China	0	10,217	7,527	3,357	0
Colombia	0 8,543	6 762	0 3,358	5 870	486 9,084
Croatia Dominican Republic	4,964	6,763 3,645	6,530	5,870 0	9,084
El Salvador	4,504	3,045	0,530	0	0,047
Finland	0	0	0	0	0
France	47,150	56,343	64,415	39,646	50,084
Germany	0	0	0	0	0
Greece	12,650	1,336	4,116	8,094	1,802
Haiti India	9 7,152	11 14,223	10 10.438	16 7,210	20 6,866
Indonesia	7,152	14,223	10,438	7,210	0,800
Italy	21,696	15,519	7,088	13,629	7,037
Jamaica	144	135	92	111	86
Japan	24,024	13,231	17,697	10,214	21,527
Jordan	0	0	0	0	0
Kuwait	14,204	7,298	0	5,277	0
Lithuania	11,237	13,770	5,700	3,131	3,518
Malta Mexico	0 0	0	0	2,345 0	0
Netherlands	28,902	28,395	24,922	31,591	16,279
Pakistan	0	3,074	0	0	0
Panama	1,192	1,536	0	3,069	3,255
Philippines	0	0	0	0	0
Poland	18,224	13,882	3,831	7,475	3,695
Portugal	3,888	6,632	10,728	3,703	2,868
Singapore	17 5 28	12 912	6,725	0	21 824
South Korea Spain	17,538 40,337	13,813 40,259	19,289 59,224	27,489 39,359	21,824 49.379
Taiwan	15,975	9,541	12,161	6,115	6,211
Thailand	3,419	0	0	4,880	3,490
Turkiye	7,281	6,637	16,629	43,697	45,081
United Kingdom	10,608	39,775	56,799	25,301	60,060
By truck					
Canada	8	15	0	4	13
Mexico Re-exports	115	122	144	157	148
By vessel					
United Kingdom	0	0	0	0	0
Total LNG exports	351,448	330,463	364,116	316,766	353,791
CNG			·		
Canada	0	0	*	0	0
Total CNG exports	0	0	*	0	0
Total exports	616,665	587,385	639,074	546,428	610,836

Table 7. Marketed production of natural gas in selected states and the Federal Gulf of Mexico, 2019-2024

million cubic feet

								New	North	
Year and month	Alaska	Arkansas	California	Colorado	Kansas	Louisiana	Montana	Mexico	Dakota	Ohio
2019 total	329,361	524,757	196,823	1,986,916	183,087	3,212,318	43,534	1,769,086	850,826	2,651,631
2020 total	339,337	481,205	155,979	1,996,740	163,362	3,205,574	38,191	1,965,533	887,445	2,389,629
2021 total	354,660	448,283	136,034	1,890,260	152,986	3,443,767	38,719	2,237,165	999,094	2,278,731
2022										
January	32,865	36,087	11,347	155,786	12,478	318,772	3,119	199,405	81,490	190,930
February	30,014	32,336	9,814	141,557	11,122	290,031	2,977	184,452	75,867	172,453
March	32,473	36,319	11,603	159,101	12,465	319,562	3,370	218,272	88,106	190,930
April	30,910	35,043	11,384	153,816	12,347	324,537	3,175	216,047	68,665	181,993
May	31,677	35,781	11,593	154,313	12,826	348,337	3,170	222,902	81,340	188,060
June	28,644	34,299	11,296	149,081	12,302	336,152	3,208	215,334	86,437	181,993
July	29,654	35,096	11,734	153,856	12,659	348,334	3,367	228,003	90,288	193,328
August	29,380	35,394	12,177	155,140	12,814	351,777	3,544	229,728	89,688	193,328
September	29,288	34,211	11,260	151,515	11,854	348,817	3,491	231,482	90,550	187,092
October	31,122	35,112	11,520	156,992	13,008	365,742	3,560	250,312	93,103	190,335
November	30,934	33,568	11,095	151,304	12,206	357,021	3,266	239,821	85,482	184,195
December	36,181	32,951	11,396	150,558	11,764	355,708	2,461	251,472	76,605	190,335
Total	373,141	416,196	136,220	1,833,019	147,846	4,064,791	38,709	2,687,231	1,007,621	2,244,971
2023										
January	33,391	€34,788	 ∎11,055	 151,849	 11,783 ⊧	€363,863	€3,538	€254,905	€83,384	 198,189 €
February	30,726	€31.085	€10.042	€135,238	€10.528	€352,464	€3,233	€233,411	€80.766	€174,917
March	32,676	€34,429	€10.900	€150,138	€11,441	€370,158	€3,565	€268,590	€88.736	€199,571
April	31,313	€32,911	€10,652	€146,856	€11.228	€363,538	€3,475	€259,515	€88.066	€187,566
May	31,288	€33,689	€11,243	€152,690	€11.555	€379,548	€3,577	€263,626	€92.326	€191.104
June	28,991	€32,280	⊧10,795	€149,138	€10,817	€345,747	€3,469	€252,650	€92.129	€179,766
July	28,478	€33,094	€11,217	€155,584	€10,985	€363,583	€3,551	€264,909	€96.906	€189,040
August	26,756	€32,973	€11,217	€157,964	€11,293	€365,347	€3,654	€270,933	€97,655	€195,216
September	28,784	€31,874	11,21	€152,177	€10,902	€351,720	€3,535	€265,057	€98,252	€188,594
October	31,535	€32,602	€10,908	€157,416	€11,305	€360,678	€3,579	€271,482	€100,209	£186,975
November	30,734	€31,377	€10,272	€154,244	€10,869	€343,826	€3,376	€270,985	€98,324	€185,717
December	33,356	€32,093	€10,619	€160,934	€10,952	€345,516	€3,621	€288,346	€103,484	€186,819
Total	368,027	⊧393,193	 ∎129,747	⊧1,824,228	⊧133,657	⊧4,305,988	⊧42,174	⊧3,164,408	⊧1,120,237	⊧2,263,473
2024										
January	34,077	€29,234	 €10,457	 €155,450	 €10,083	€339,634	€3,478	€275,658	€89,672	 179,681
February	31,472	re29,775	RE9,726	RE149.839	RE10.092	re329,471	RE3,371	RE273,048	re94,200	€179,998
March	33,621	RE31,733	RE10,439	RE161,205	RE10,717	RE332,058	RE3,650	RE295,988	RE98,680	€186,768
April	31,174	€30,191	€10,045	€152,687	€10,069	€300,345	€3,569	€283,329	€98,069	€182,351
2024 4-month YTD	130,345	⊧120,933	⊧40,667	€619,182	⊧40,961	€1,301,508	€14,069	€1,128,024	⊧380,622	₽728,797
2023 4-month YTD	128,105	E133,212	E42,650	€584,081	E44,979	E1,450,023	E13,812	E1,016,421	€340,952	₹760,243
2022 4-month YTD	126,261	139,785	44,148	610,260	48,412	1,252,903	12,641	818,177	314,128	736,305

Table 7. Marketed production of natural gas in selected states and the Federal Gulf of Mexico, 2019-2024

million cubic feet - continued

Year and month	Oklahoma	Pennsylvania	Texas	Utah	West Virginia	Wyoming	Other states	Federal Gulf of Mexico	U.S. total
		•			J	1 0			
2019 total	3,036,052	6,896,792	9,378,489	271,808	2,155,214	1,488,854	456,024	1,015,343	36,446,918
2020 total	2,673,207	7,168,902	9,813,035	241,965	2,567,990	1,206,122	435,117	791,491	36,520,826
2021 total	2,555,430	7,647,068	9,949,156	239,422	2,675,145	1,109,416	401,892	780,632	37,337,860
2022									
January	216,347	657,613	878,743	20,719	234,795	89,680	30,986	64,105	3,235,266
February	196,621	577,251	795,295	18,516	209,707	78,589	31,234	56,642	2,914,480
March	225,203	634,328	903,364	21,502	239,344	87,991	34,249	64,273	3,282,454
April	226,464	614,569	880,176	21,243	235,580	86,485	31,383	65,402	3,199,218
May	235,497	638,527	918,979	22,306	247,179	85,606	32,053	61,895	3,332,041
June	231,202	616,619	881,753	21,786	240,568	85,970	31,592	64,090	3,232,326
July	239,209	644,039	920,414	22,646	251,625	89,886	34,763	66,176	3,375,077
August	238,619	635,404	937,041	23,549	255,603	87,801	33,420	67,976	3,392,383
September	238,112	618,364	925,985	21,849	245,734	83,339	32,595		3,330,414
October	245,755	637,050	941,968	22,103	251,647	88,939	33,226		3,437,743
November	234,562	613,000	910,587	21,297	255,298	85,621	32,901		3,326,572
December	236,429	624,415	934,211	22,675	253,533	82,730	32,644		3,370,376
Total	2,764,019	7,511,179	10,828,515	260,192	2,920,613	1,032,634	391,046	770,406	39,428,350
2023									
	€241.437	€646,645	⊧935,962	 €22.310	€256,931	€79.538	⊧31,536	€67.666	€3,428,769
January	· · ·					€79,538 €69,492			
February	€217,813	€572,742	€842,907	€18,969 522,752	€231,585		€27,372 €27,021		€3,102,781
March	€240,498	€642,354	€961,177	€22,752 €22,593	€266,638	⊧78,520 ⊧75,109	€27,921		€3,474,934
April	€232,276	€619,656	€932,661		€256,029		€30,110 520,700		€3,362,007
May	€237,558	€648,124 €648,124	€982,394	€24,031	€268,279	€81,880	€30,706		€3,499,909
June	€233,220	€627,912	€949,437	€24,338	€266,083	€80,375	€31,225	€57,076	€3,375,450
July	€238,429	€643,265	€985,195	€24,165	€279,996	€70,816	€32,548		€3,494,802
August	€236,507	€648,577	€996,400	€25,154	€282,678	€79,142	€32,273	€59,986	€3,533,722
September	€234,235	€616,784	€966,776	€24,587	€268,946	€78,776	€31,376		€3,426,002
October	€239,892	€640,992	€999,974	€25,742	€284,310	€85,128	€32,256		€3,536,693
November	€229,910	€643,405	€974,811	€25,583	€282,583	€84,830	€30,876		€3,468,760
December	€235,522	€669,263	€1,012,273	€26,418	€295,117	€87,440	€31,385	€59,102	€3,592,260
Total	⊧2,817,297	₽7,619,721	⊧11,539,966	 ∎286,642	⊧3,239,174	⊧951,046	⊧369,584	⊧727,526	⊧41,296,088
2024									
January	€225,757	€666,020	€972,060	€26,309	€287,332	 €84,996	€30,998	₅58,709	€3,479,605
February	RE219.966	RE617.929	RE942.372	re24.097	RE269.068	RE81,306	RE29.139	RE54.000	RE3.348.871
March	RE232,336	RE601,175	RE1,009,415	RE25,712	RE284,527	RE85,535	RE30,586		RE3,488,765
April	€225,629	€584,474	€969,613	€24,884	€276,227	€80,286	€29,799	€57,629	€3,350,373
2024 4-month YTD	⊧903,689	₽2,469,598	⊧3,893,459	 101,003 ⊧	€1,117,154	⊧332,122	€120,522	€224.959	13,667,613
2023 4-month YTD	€932,024	€2,481,398	€3,672,706	€86,624	E1,011,182	€302,659	E116,938		E13,368,490
2022 4-month YTD	864,634	2,483,761	3,457,579	81,980	919,426	342,744	127,852		12,631,418
	004,004	2,403,701	5,5,75,575	01,500	515,420	372,777	127,032	230,422	12,031,410

RE Revised estimated data.

E Estimated data.

Source: 2019-2022: U.S. Energy Information Administration (EIA), Natural Gas Annual 2022, Bureau of Safety and Environmental Enforcement (BSEE), IHS Markit, and Enverus. January 2023 through current month: Form EIA-914, Monthly Crude Oil and Lease Condensate, and Natural Gas Production Report; and EIA computations.

Note: For 2023 forward, we estimate state monthly marketed production from gross withdrawals using historical relationships between the two. We collect data for Arkansas, California, Colorado, Kansas, Louisiana, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Pennsylvania, Texas, Utah, West Virginia, Wyoming, and federal offshore Gulf of Mexico individually on the EIA-914 report. The "other states" category comprises states/areas not individually collected on the EIA-914 report (Alabama, Arizona, Federal Offshore Pacific, Florida, Idaho, Illinois, Indiana, Kentucky, Maryland, Michigan, Mississippi, Missouri, Nebraska, Nevada, New York, Oregon, South Dakota, Tennessee, and Virginia). Before 2023, Federal Offshore Pacific is included in California. We obtain all data for Alaska directly from the state. Monthly preliminary state-level data for all states not collected individually on the EIA-914 report are available after the final annual reports for these series are collected and processed. Final annual data are generally available in the third quarter of the following year. The sum of individual states may not equal total U.S. volumes because of independent rounding.

Executive Summary

April 2024

Summary

In April 2024, the United States exported 567.1 Bcf and imported 230.4 Bcf of natural gas, which resulted in 336.7 Bcf of net exports.

U.S. LNG Exports

The United States exported 303.8 Bcf (53.6% of total U.S. natural gas exports) of natural gas in the form of liquefied natural gas (LNG) to 31 countries.

- Europe (157.3 Bcf, 51.8%), Asia (113.8 Bcf, 37.5%), Latin America/ Caribbean (32.7 Bcf, 10.8%)
- 17.9% decrease from March 2024
- 19.2% decrease from April 2023
- 84.4% of total LNG exports went to non-Free Trade Agreement countries (nFTA), while the remaining 15.6% went to Free Trade Agreement countries (FTA).

U.S. LNG exports to the top five countries of destination accounted for 49.3% of total U.S. LNG exports.

Netherlands (47.5 Bcf, 15.6%), France (37.7 Bcf, 12.4%), Japan (22.2 Bcf, 7.3%), Germany (21.5 Bcf, 7.1%), and India (20.8 Bcf, 6.9%).

U.S. Imports and Exports by Pipeline and Truck with Mexico

The United States exported 190.2 Bcf of natural gas to Mexico and imported less than 0.1 Bcf of natural gas from Mexico, which resulted in 190.2 Bcf of net exports.

- 4.6% increase from March 2024
- 12.4% increase from April 2023

U.S. Imports and Exports by Pipeline and Truck with Canada

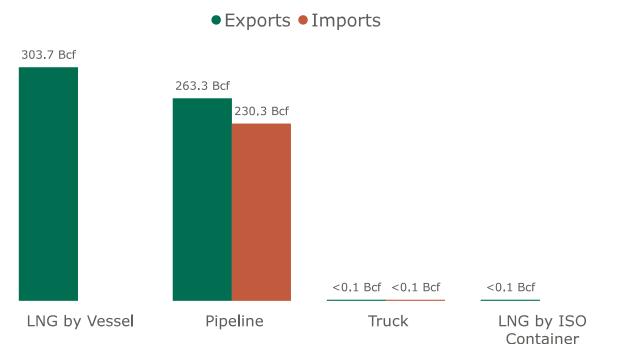
The United States exported 73.1 Bcf of natural gas to Canada and imported 230.3 Bcf of natural gas from Canada, which resulted in 157.2 Bcf of net imports.

- 18.8% increase from March 2024
- 1.9% increase from April 2023

U.S. Natural Gas Imports & Exports

Monthly Summary

U.S. Natural Gas Imports & Exports by Mode of Transport (April 2024)



1a. Monthly Summary: U.S. Natural Gas Imports & Exports by Mode of Transport

Volume (Bcf)		Monthly		Percentag	je Change
Mode of Transport	Apr 2024	Mar 2024	Apr 2023	Apr 2024 vs. Mar 2024	Apr 2024 ∨s⊾ Apr 2023
Exports					
LNG by Vessel	303.7	369.8	375.7	-18%	-19%
Pipeline	263.3	298.1	244.9	-12%	8%
Truck	<0.1	<0.1	<0.1	76%	-66%
LNG by ISO Container	<0.1	<0.1	<0.1	-6%	-25%
Total	567.1	668.0	620.7	-15%	-9%
Imports					
LNG by Vessel	0	4.6	0	-100%	-
Pipeline	230.3	248.5	229.7	-7%	<1%
Truck	<0.1	<0.1	0.2	-26%	-69%
LNG by ISO Container	0	0	0	-	-
Total	230.4	253.2	230.0	-9 %	<1%
Net Exports	336.7	414.8	390.7	-19%	-14%

Notes

- Natural gas imports & exports by truck included compressed natural gas (CNG) and liquefied natural gas (LNG).

- Does not include LNG Re-Exports or Puerto Rico LNG Imports or Exports. See Table 6 for LNG Re-Exports and Table 8 for Puerto Rico LNG Imports and Exports.

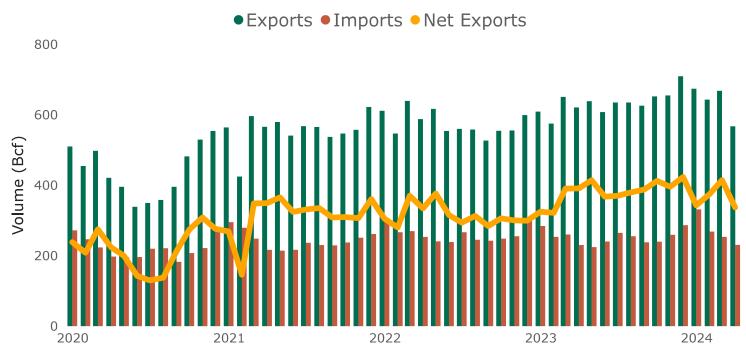
- Totals may not equal sum of components because of independent rounding.

- not applicable(-).

U.S. Natural Gas Imports & Exports

Year-to-Date and Annual Summary

U.S. Natural Gas Imports & Exports



1b. Year-to-Date and Annual Summary: U.S. Natural Gas Imports & Exports by Mode of Transport

Volume (Bcf)	Year-	to-Date (Ja	n-Apr)		Annua	
Mode of Transport	YTD 2024	YTD 2023	% Change	2023	2022	% Change
Exports						
LNG by Vessel	1,428.5	1,404.8	2%	4,341.2	3,861.9	12%
Pipeline	1,123.0	1,048.6	7%	3,267.7	3,040.8	7%
Truck	<0.1	0.4	-83%	0.7	1.6	-58%
LNG by ISO Container	0.3	0.6	-51%	1.1	2.1	-48%
Total	2,551.8	2,454.5	4%	7,610.7	6,906.4	10%
Imports						
LNG by Vessel	11.5	7.9	45%	13.2	23.5	-44%
Pipeline	1,071.1	1,018.4	5%	3,016.8	3,104.0	-3%
Truck	0.5	0.5	-6%	2.4	2.1	14%
LNG by ISO Container	0	0	-	0	0	-
Total	1,083.1	1,026.9	5%	3,032.4	3,129.6	-3%
Net Exports	1,469.4	1,427.6	3%	4,578.3	3,776.8	21%

Notes

- not applicable(-).

⁻ Does not include LNG Re-Exports or Puerto Rico LNG Imports or Exports. See Table 6 for LNG Re-Exports and Table 8 for Puerto Rico LNG Imports and Exports.

⁻ Totals may not equal sum of components because of independent rounding.

June 26, 2024

Aramco and Sempra announce Heads of Agreement for equity and offtake from Port Arthur LNG Phase 2

DHAHRAN, Saudi Arabia, June 26, 2024 /PRNewswire/ -- Aramco, one of the world's leading integrated energy and chemicals companies, and <u>Sempra</u> (NYSE: SRE) (BMV: SRE), one of North America's leading energy infrastructure companies, today announce that their respective subsidiaries have executed a nonbinding Heads of Agreement (HoA) for a 20-year sale and purchase agreement (SPA) for liquefied natural gas (LNG) offtake of 5.0 million tonnes per annum (Mtpa) from the Port Arthur LNG Phase 2 expansion project. The HoA further contemplates Aramco's 25% participation in the project-level equity of Phase 2.

The parties expect to execute a binding LNG SPA and definitive equity agreements with terms substantially equivalent to those in the HoA, with the SPA and equity agreements subject to a number of conditions.



Port Arthur LNG Phase 2 Project

Nasir K. AI-Naimi, Aramco Upstream President, said: "We are excited to take this next step into the LNG sector. As a potential strategic partner in the Port Arthur LNG Phase 2 project, Aramco is well placed to grow its gas portfolio with the aim of meeting the world's growing need for lower-carbon sources of energy. This agreement is a major step in Aramco's strategy to become a leading global LNG player."

Jeffrey W. Martin, Sempra Chairman and CEO, said: "The planned expansion of Port Arthur LNG would help facilitate the broad distribution of U.S. natural gas across global energy markets. By expanding the global reach of the Port Arthur LNG facility, we have the opportunity to improve energy security, while providing a lower-carbon alternative to coal for electricity production."

Port Arthur LNG is a natural gas liquefaction and export terminal in Southeast Texas with direct access to the Gulf of Mexico. The Port Arthur LNG Phase 1 project is currently under construction and consists of trains 1 and 2, as well as two LNG storage tanks and associated facilities. The Port Arthur LNG Phase 2 project is a competitively positioned expansion of the site to include the addition of up to two trains capable of producing up to 13 Mtpa.

At the heart of Sempra Infrastructure's flagship Port Arthur Energy Hub, Port Arthur LNG has potential to expand to a total of eight trains, which would position it as one of the world's most significant LNG export facilities. The facility is expected to play an important role in enhancing global energy security and resilience. Moreover, Sempra Infrastructure is actively advancing infrastructure projects within the Port Arthur Energy Hub, addressing both the rising demand for lower-carbon fuels and carbon intensity reduction. This includes the proposed Titan Carbon Sequestration project.



About Aramco

As one of the world's leading integrated energy and chemicals companies, our global team is dedicated to creating impact in all that we do, from providing crucial oil supplies to developing new energy technologies. We focus on making our resources more dependable, more sustainable and more useful, helping to promote growth and productivity around the world. <u>www.aramco.com</u>

About Sempra

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Sempra is a leading North American energy infrastructure company focused on delivering energy to nearly 40 million consumers. As owner of one of the largest energy networks on the continent, Sempra is electrifying and improving the energy resilience of some of the world's most significant economic markets, including California, Texas, Mexico and global energy markets. The company is recognized as a leader in sustainable business practices and for its high-performance culture focused on safety and operational excellence, as demonstrated by Sempra's inclusion in the Dow Jones Sustainability Index North America and in The Wall Street Journal's Best Managed Companies. More information about Sempra is available at <u>sempra.com</u> and on social media @Sempra

Second Quarter | June 26, 2024

Oil and gas activity rises modestly as production, employment little changed

What's New This Quarter

<u>Special questions</u> this quarter focus on artificial intelligence use and benefits, the potential impact of consolidation on U.S. oil production, lithium extraction from oil field brine, the impact of low Waha Hub natural gas prices on oil field and services activity in the Permian Basin and expectations for drilling horizontal laterals in a horseshoe pattern.

Activity in the oil and gas sector grew in the second quarter of 2024, according to oil and gas executives responding to the Dallas Fed Energy Survey. The business activity index, the survey's broadest measure of the conditions energy firms in the Eleventh District face, increased from 2.0 in the first quarter to 12.5 in the second quarter.

Oil and gas production was little changed in the second quarter, according to executives at exploration and production (E&P) firms. The oil production index advanced from -4.1in the first quarter to 1.1 in the second quarter. The near-zero reading suggests production was essentially unchanged. Meanwhile, the natural gas production index also turned positive, but barely so, increasing from -17.0 to 2.3.

Costs rose at a slightly faster pace for oilfield services, but at a slower pace for E&P firms. Among oilfield services firms, the input cost index increased from 31.2 to 42.2. Among E&P firms, the finding and development costs index declined from 24.2 to 15.7. Meanwhile, the lease operating expenses index declined from 33.7 to 23.6.

The equipment utilization index of oilfield services firms turned positive, increasing from -4.2 in the first quarter to 10.9 in the second. The operating margin index remained negative but increased from -35.4 to -13.0, suggesting margins declined at a much slower pace. The index of prices received for services was relatively unchanged at -4.4.

The aggregate employment index was little changed at 2.9 in the first quarter. While this is the 14th consecutive positive reading for the index, the low-single-digit result suggests slow net hiring. The aggregate employee hours index was largely unchanged at 8.1. Additionally, the aggregate wages and benefits index decreased from 32.8 to 24.0.

The company outlook index was essentially unchanged at 10.0. The outlook index was 16.8 for E&P firms compared with -2.1 for services firms, suggesting modest optimism among E&P firms and a neutral outlook among services firms. The overall outlook uncertainty index was unchanged at 24.1, suggesting uncertainty continued to increase on net.

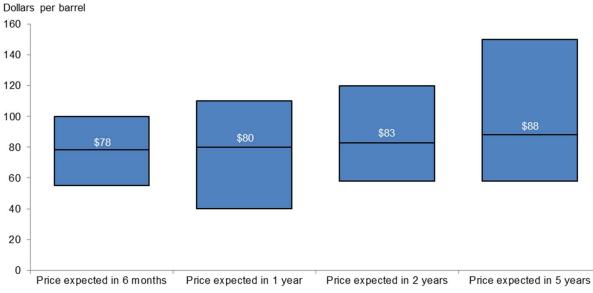
On average, respondents expect a West Texas Intermediate (WTI) oil price of \$79 per barrel at year-end 2024; responses ranged from \$62.5 to \$100 per barrel. When asked about longer-term expectations, respondents on average expect a WTI oil price of \$83 per barrel two years from now and \$88 per barrel five years from now. Survey participants expect a Henry Hub natural gas price of \$3.01 per million British thermal units (MMBtu) at year-end. When asked about longer-term expectations, respondents on average anticipate a Henry Hub gas price of \$3.58 per MMBtu two years from now and \$4.28 per MMBtu five years from now. For reference, WTI spot prices averaged \$79.94 per barrel during the survey collection period, and Henry Hub spot prices averaged \$2.61 per MMBtu.

Data were collected June 12–20, and 138 energy firms responded. Of the respondents, 90 were exploration and production firms and 48 were oilfield services firms.

The Dallas Fed conducts the Dallas Fed Energy Survey quarterly to obtain a timely assessment of energy activity among oil and gas firms located or headquartered in the Eleventh District. Firms are asked whether business activity, employment, capital expenditures and other indicators increased, decreased or remained unchanged compared with the prior quarter and with the same quarter a year ago. Survey responses are used to calculate an index for each indicator. Each index is calculated by subtracting the percentage of respondents reporting a decrease from the percentage reporting an increase. When the share of firms reporting an increase exceeds the share reporting a decrease, the index will be greater than zero, suggesting the indicator has increased over the previous quarter. If the share of firms reporting an increase, the index will be below zero, suggesting the indicator has decreased over the previous quarter.

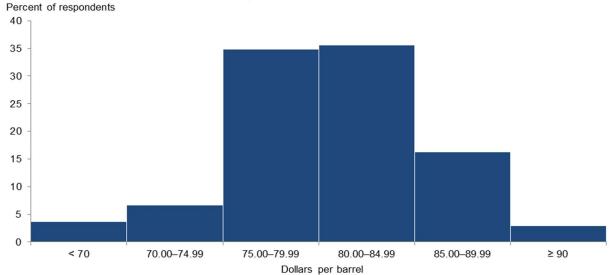
Price Forecasts

West Texas Intermediate Crude



What do you expect WTI prices to be in six months, one year, two years and five years?

NOTE: Executives from 123 oil and gas firms answered this question during the survey collection period, June 12–20, 2024. For reference, WTI (West Texas Intermediate) spot prices averaged \$79.94 per barrel during the period. The middle line denotes the mean, while the bottom and top of the box denote the minimum and maximum response. SOURCE: Federal Reserve Bank of Dallas; Chicago Mercantile Exchange (reference price).



What do you expect the WTI crude oil price to be at the end of 2024?

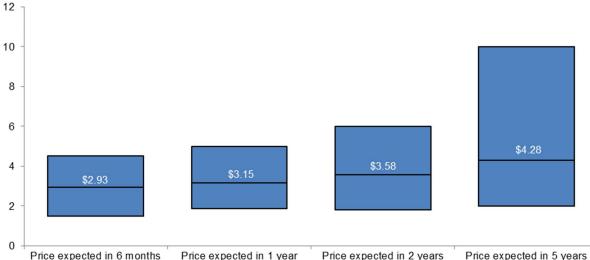
NOTES: Executives from 135 oil and gas firms answered this question during the survey collection period, June 12–20, 2024. The average response was \$79 per barrel. For reference, WTI (West Texas Intermediate) spot prices averaged \$79.94 per barrel during the period.

SOURCES: Federal Reserve Bank of Dallas; Chicago Mercantile Exchange (reference price).

West Texas Intermediate crude oil price (dollars per barrel), year-end 2024									
Indicator	Survey Average	Low Forecast	High Forecast	Price During Survey					
Current quarter	\$78.66	\$62.50	\$100.00	\$79.94					
Prior quarter	\$80.11	\$70.00	\$120.00	\$82.52					

NOTE: Price during survey is an average of daily spot prices during the survey collection period. SOURCES: Federal Reserve Bank of Dallas; Chicago Mercantile Exchange.

Henry Hub Natural Gas

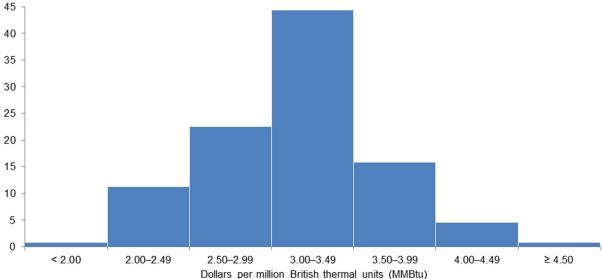


What do you expect Henry Hub natural gas prices to be in six months, one year, two years and five years? Dollars per MMBtu

NOTE: Executives from 116 oil and gas firms answered this question during the survey collection period, June 12–20, 2024. For reference, Henry Hub spot prices averaged \$2.61 per MMBtu during the period. The middle line denotes the mean, while the bottom and top of the box denote the minimum and maximum response.

SOURCE: Federal Reserve Bank of Dallas; Energy Information Administration (reference price).





NOTES: Executives from 133 oil and gas firms answered this question during the survey collection period, June 12–20, 2024. The average response was \$3.01 per MMBtu. For reference, Henry Hub spot prices averaged \$2.61 per MMBtu during the period.

SOURCES: Federal Reserve Bank of Dallas; Energy Information Administration (reference price).

Henry Hub natural gas price (dollars per MMBtu), year-end 2024										
	Survey Average	Low Forecast	High Forecast	Price During Survey						
Current quarter	\$3.01	\$1.85	\$4.80	\$2.61						
Prior quarter	\$2.59	\$1.50	\$7.00	\$1.44						
NOTE: Price during survey is an average of daily spot prices durin SOURCES: Federal Reserve Bank of Dallas; Energy Information Ad		riod.								

Special Questions

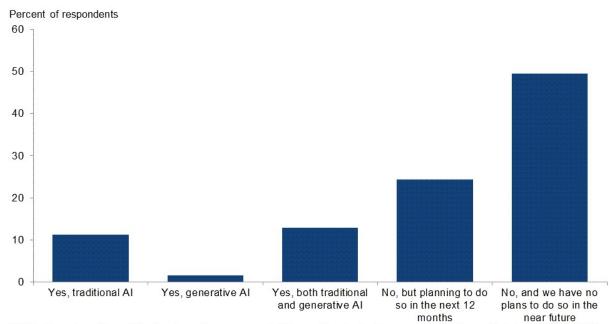
Data were collected June 12–20; 136 oil and gas firms responded to the special questions survey.

All firms

Is your firm currently using artificial intelligence (AI)?

Executives were provided examples of traditional AI and generative AI before they responded to the question. Fifty percent of executives said their firm is not using AI and has no plans to do so in the near future. Twenty-six percent of executives note their firm is using either traditional AI, generative AI or both. The remaining 24 percent of executives said their firm is currently not using AI but plans to do so in the next 12 months.

Responses differed depending on the firm's size and type. Roughly half of the executives surveyed from large exploration and production (E&P) firms (with crude oil production of 10,000 barrels per day or more as of the fourth quarter of 2023) note they are using some form of AI, compared with 32 percent of executives from oil and gas support services firms and 16 percent of executives from small E&P firms (fewer than 10,000 barrels per day). Small E&P firms were also more likely than large E&P firms and services firms to indicate they have no plans to use AI in the near future. A breakdown of the data can be found in the table below.



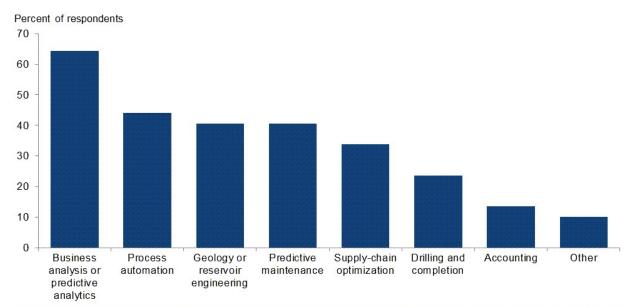
NOTE: Executives from 123 oil and gas firms answered this question during the survey collection period, June 12–20, 2024. SOURCE: Federal Reserve Bank of Dallas.

Response	Percent of respondents (among each group)						
	All firms	Large E&P	Small E&P	Services			
Yes, traditional Al	11	25	5	16			
Yes, generative Al	2	13	0	0			
Yes, both traditional and generative Al	13	13	11	16			
No, but planning to do so in the next 12 months	24	19	27	23			
No, and we have no plans to do so in the near future	50	31	57	45			

NOTES: Executives from 79 exploration and production firms and 44 oil and gas support services firms answered this question during the survey collection period, June 12–20, 2024. Small E&P firms produced fewer than 10,000 barrels per day (b/d) in the fourth quarter of 2023, while large E&P firms produced 10,000 b/d or more. Responses came from 63 small firms and 16 large firms. Percentages may not sum to 100 due to rounding. SOURCE: Federal Reserve Bank of Dallas.

How is your firm using or planning to use AI? Please select all that apply.

This question was only posed to executives who said their firm currently uses AI or is planning to use it in the next 12 months. Executives were presented with seven potential uses, along with an option for "other." The most selected response was "business analysis or predictive analytics" (64 percent of respondents) followed by "process automation" (44 percent of respondents). Both "geology or reservoir engineering" and "predictive maintenance" were selected by 41 percent of respondents. A breakdown of the data between the type of firm and size is in the table below. Exploration and production firms were more likely to note multiple uses for AI.



NOTES: This question was only posed to respondents who said they currently use artificial intelligence (AI) or are planning to in the next 12 months. Executives from 59 oil and gas firms answered this question during the survey collection period, June 12–20, 2024.

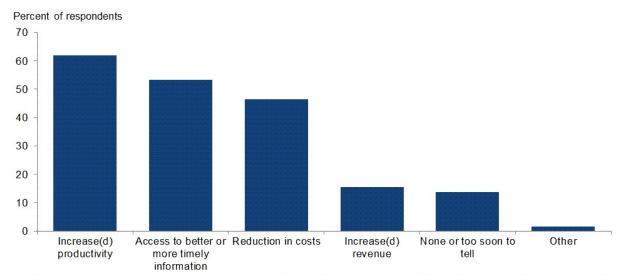
SOURCE: Federal Reserve Bank of Dallas.

Response		Percent of respondents (among each group)					
	All firms	Large E&P	Small E&P	Services			
Business analysis or predictive analytics	64	82	64	57			
Process automation	44	45	56	30			
Geology or reservoir engineering	41	55	64	9			
Predictive maintenance	41	55	32	43			
Supply-chain optimization	34	27	44	26			
Drilling and completion	24	27	16	30			
Accounting	14	27	8	13			
Other	10	18	4	13			

NOTES: This question was only posed to respondents who said they currently use AI or are planning to use it in the next 12 months. Executives from 36 exploration and production firms and 23 oil and gas support services firms answered this question during the survey collection period, June 12–20, 2024. Responses came from 25 small E&P firms and 11 large E&P firms. Percentages may not sum to 100 due to rounding. SOURCE: Federal Reserve Bank of Dallas.

What benefits has your firm experienced or does your firm expect to experience from using AI? Please select all that apply.

This question was only posed to executives who said their firm currently uses AI or is planning to use it in the next 12 months. Executives were presented five potential benefits of AI, along with an option for "other." The most selected response was "increase(d) productivity" (62 percent of respondents) followed by "access to better or more timely information" (53 percent of respondents) and "reduction in costs" (47 percent of respondents). A breakdown of the data between the type of firm and size can be found in the table below. Exploration and production firms were more likely to note multiple AI benefits.



NOTES: This question was only posed to respondents who said they currently use artificial intelligence (AI) or are planning to use it in the next 12 months. Depending on whether they are currently using AI or planning to use it, the question and response choices were adjusted between present or future tense. Executives from 58 oil and gas firms answered this question during the survey collection period, June 12–20, 2024.

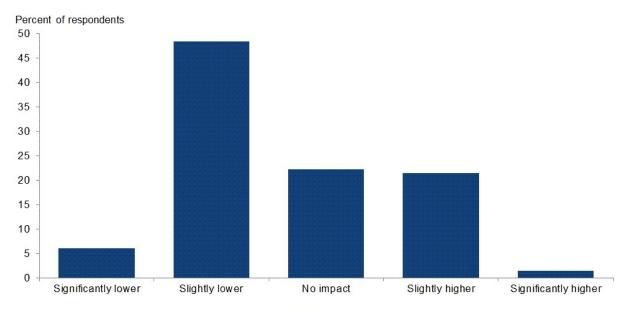
SOURCE: Federal Reserve Bank of Dallas.

Response	Percent of respondents (among each group)						
	All firms	Large E&P	Small E&P	Services			
Increase(d) productivity	62	91	64	45			
Access to better or more timely information	53	64	60	41			
Reduction in costs	47	45	56	36			
Increase(d) revenue	16	27	16	9			
None or too soon to tell	14	0	4	32			
Other	2	0	0	5			

NOTES: This question was only posed to respondents who said they currently use AI or are planning to use it in the next 12 months. Depending on whether they are currently using AI or planning to use it, the question and response choices were adjusted between present or future tense. Executives from 36 exploration and production firms and 22 oil and gas support services firms answered this question during the survey collection period, June 12–20, 2024. Responses came from 25 small E&P firms and 11 large E&P firms. Percentages may not sum to 100 due to rounding. SOURCE: Federal Reserve Bank of Dallas.

What impact on U.S. oil production would you expect if there were continuing industry consolidation in the U.S. E&P sector over the next 5 years? Oil production would be:

The most-selected response was "slightly lower" (48 percent of respondents) followed by "no impact" (22 percent of respondents) and "slightly higher" (22 percent of respondents). All executives from E&P firms that produce 100,000 b/d or more selected "no impact."

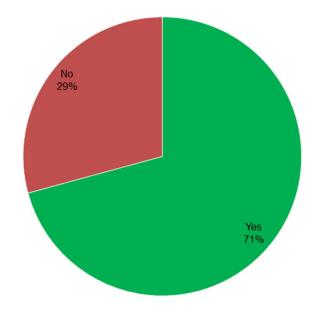


NOTE: E&P is exploration and production. Executives from 130 oil and gas firms answered this question during the survey collection period, June 12–20, 2024.

SOURCE: Federal Reserve Bank of Dallas.

Are you aware of oil and gas companies attempting to extract lithium from oil field brine?

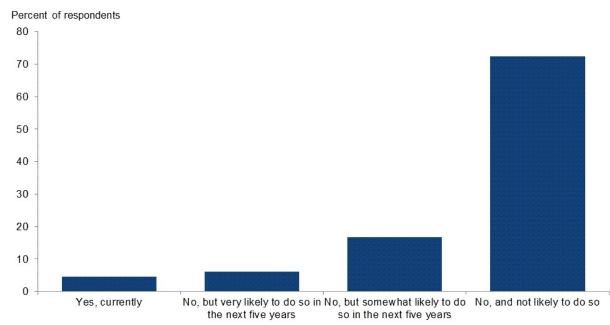
Seventy-one percent of executives said they are aware of oil and gas companies attempting to extract lithium from oil field brine.



NOTE: Executives from 130 oil and gas firms answered this question during the survey collection period, June 12–20, 2024. SOURCE: Federal Reserve Bank of Dallas.

Is your firm doing work related to extracting lithium from oil field brine?

The majority of executives, 73 percent, said their firm is not doing work related to extracting lithium from oil field brine and is unlikely to do so in the future. Seventeen percent note their firm is not doing work related to extracting lithium from oil field brine but is somewhat likely to do so in the next five years. Five percent said their firm is doing work related to lithium extraction from oil field brine, and 6 percent said their firm is very likely to do work in this space over the next 5 years. A breakdown of the data by firm type can be found in the table below. (Percentages don't sum to 100 due to rounding.)



NOTE: Executives from 131 oil and gas firms answered this question during the survey collection period, June 12-20, 2024. SOURCE: Federal Reserve Bank of Dallas.

Response	Percent of r	Percent of respondents (among each group)				
	All firms	E&P	Services			
Yes, currently	5	5	4			
No, but very likely to do so in the next five years	6	3	11			
No, but somewhat likely to do so in the next five years	17	10	29			
No, and not likely to do so	73	81	56			

NOTE: Executives from 86 exploration and production firms and 45 oil and gas support services firms answered this question during the survey collection period, June 12–20, 2024.

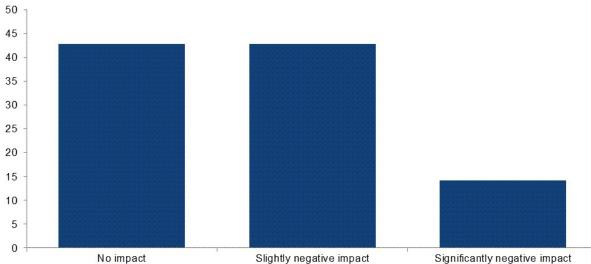
SOURCE: Federal Reserve Bank of Dallas.

Percent of respondents

Exploration and production (E&P) firms

What impact will low Waha Hub natural gas prices likely have on your firm's drilling and completion plans in the Permian for the rest of 2024?

The Waha Hub is a gathering location for natural gas in the Permian Basin that connects to major pipelines. Of the executives surveyed, 43 percent said low Waha Hub natural gas prices won't likely affect their firm's drilling and completion plans in the Permian for the rest of 2024. Meanwhile, 43 percent expect a slightly negative impact, and an additional 14 percent said the low Waha Hub prices will have a significantly negative impact on drilling and completion plans for the rest of this year in the Permian. Small E&P firms were more likely to expect negative impacts. A breakdown of the data is in the table below.



NOTES: Executives from 28 exploration and production firms answered this question during the survey collection period, June 12–20, 2024. This question was posed only to executives who said their firm drilled or completed a horizontal well in the Permian Basin in the past two years.

SOURCE: Federal Reserve Bank of Dallas.

Response	Percent o	Percent of respondents (among each group)				
	All E&P	Large E&P	Small E&P			
No impact	43	58	31			
Slightly negative impact	43	33	50			
Significantly negative impact	14	8	19			

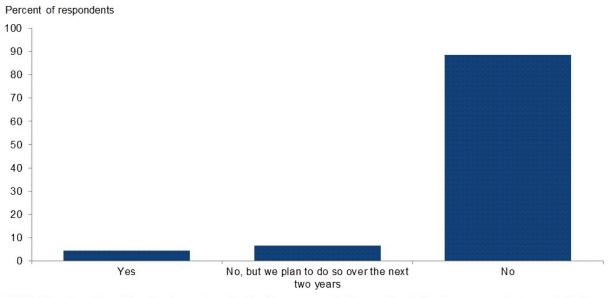
NOTES: Executives from 28 exploration and production firms answered this question during the survey collection period, June 12–20, 2024. Responses came from 16 small firms and 12 large firms. This question was posed only to executives who said their firm drilled or completed a horizontal well in the Permian Basin in the past two years.

SOURCE: Federal Reserve Bank of Dallas.

Has your firm experimented with drilling horizontal laterals in a horseshoe pattern (or U-shaped pattern)?

In specific drilling locations limited by the size of the acreage lease, drilling a horizontal lateral in a horseshoe pattern (or U-shaped pattern) provides the opportunity to drill a longer lateral while potentially saving time and reducing cost compared to drilling two wells with half the lateral length.

A majority of the executives surveyed, 89 percent, said their firm has not experimented with drilling horizontal laterals in a horseshoe pattern (or U-shaped pattern). Seven percent note their firm has not drilled a horizontal lateral in this pattern but plans to do so in the next two years. Five percent of executives said their firm has experimented with drilling horizontal laterals in a horseshoe pattern.

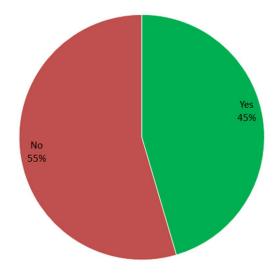


NOTE: Executives from 88 exploration and production firms answered this question during the survey collection period, June 12-20, 2024.

SOURCE: Federal Reserve Bank of Dallas.

Do you expect drilling horizontal laterals in a horseshoe pattern (or U-shaped pattern) to become more widely used in the next two years?

Of the executives responding, 45 percent said they expect drilling horizontal laterals in a horseshoe pattern (or U-shaped pattern) to become more widely used in the next two years. The remaining 55 percent of executives don't expect this to occur.



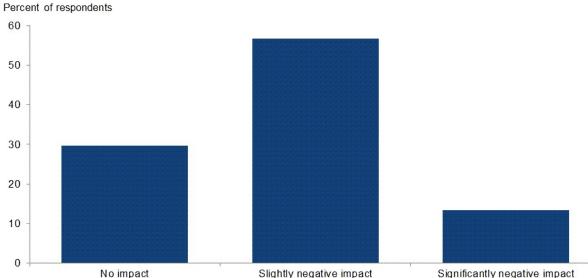
NOTE: Executives from 55 exploration and production firms answered this question during the survey collection period, June 12-20, 2024.

SOURCE: Federal Reserve Bank of Dallas.

Oil and gas support services firms

What impact will low Waha Hub natural gas prices likely have on demand for your firm's services in the Permian for the rest of 2024?

The majority of executives surveyed, 57 percent, said low Waha Hub natural gas prices will likely have a slightly negative impact on demand for their firm's services in the Permian Basin for the rest of 2024. Thirty percent note no impact, while 14 percent said the low Waha Hub prices will have a significantly negative impact on demand for their firm's services in the basin for the rest of this year.



NOTES: Executives from 37 oil and gas support firms answered this question during the survey collection period, June 12–20, 2024. This question was posed only to executives who said their firm provided services in the Permian Basin in the past two years.

SOURCE: Federal Reserve Bank of Dallas.

Special Questions Comments

Exploration and Production (E&P) Firms

- ERCOT's West Texas region experienced new records in power consumption in May 2024, with power consumption well above last year's August peaks. This continues to suggest power costs will rise, and the availability of grid power will decline in the near-term years, as no new dispatchable power has been built in the West Texas region. Adding renewables is further disrupting grid stability for businesses that run consistently, 24 hours a day.
- Expensive U-shaped horizontal drilling will not be profitable under current market conditions and uncertainty.

Oil and Gas Support Services Firms

- We are just beginning to explore the full capabilities of artificial intelligence within our business. Within 12-18 months, we will utilize advanced analytics to create predictive models, automate decision-making and automate field operations as much as possible. Firms currently not exploring the capabilities of AI will soon struggle to compete on any metric other than price.
- Regarding AI, we try to understand and utilize the best technology and tools to advance our operations and the solutions we provide for our customers. We've migrated from statistical analysis to machine learning or basic AI, and we are now experimenting with generative and visual AI. We certainly see some opportunities to increase efficiencies of administrative tasks, and while we are in the early phases of experimentation, we see greater potential for improving internal business processes and our product offerings utilizing both generative and visual AI image recognition.
- E&P consolidation, the upcoming election, international turmoil and a lack of funding have made the oilfield services space challenging to survive, but we keep fighting on, hoping for a brighter future.

Business Indicators: Quarter/Quarter

Business Indicators: All Firms Current Quarter (versus previous quarter)					
	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	12.5	2.0	30.7	51.1	18.2
Capital Expenditures	8.2	5.6	30.4	47.4	22.2
Supplier Delivery Time	-1.5	-5.0	8.2	82.1	9.7
Employment	2.9	3.4	15.3	72.3	12.4
Employee Hours	8.1	6.9	18.4	71.3	10.3
Nages and Benefits	24.0	32.8	25.5	73.0	1.5
ndicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	10.0	12.0	29.2	51.5	19.2
Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Jncertainty	24.1	24.1	33.6	56.9	9.5

	Current Index		% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	14.5	4.2	27.8	58.9	13.3
Oil Production	1.1	-4.1	30.3	40.4	29.2
Natural Gas Wellhead Production	2.3	-17.0	25.0	52.3	22.7
Capital Expenditures	10.2	0.0	31.8	46.6	21.6
Expected Level of Capital Expenditures Next Year	16.9	36.5	36.0	44.9	19.1
Supplier Delivery Time	1.1	-7.5	9.1	83.0	8.0
mployment	2.2	6.2	11.1	80.0	8.9
Employee Hours	5.6	10.4	13.5	78.7	7.9
Nages and Benefits	24.5	34.4	25.6	73.3	1.1
Finding and Development Costs	15.7	24.2	25.8	64.0	10.1
ease Operating Expenses	23.6	33.7	31.5	60.7	7.9

Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Uncertainty	18.9	21.1	30.0	58.9	11.1

15.6

32.5

51.8

15.7

16.8

Company Outlook

Indicator	Current Index		% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	8.5	-2.0	36.2	36.2	27.7
Utilization of Equipment	10.9	-4.2	34.8	41.3	23.9
Capital Expenditures	4.3	16.4	27.7	48.9	23.4
Supplier Delivery Time	-6.5	0.0	6.5	80.4	13.0
ag Time in Delivery of Firm's Services	4.4	4.0	13.3	77.8	8.9
mployment	4.3	-2.1	23.4	57.4	19.1
mployment Hours	12.8	0.0	27.7	57.4	14.9
Vages and Benefits	23.4	30.0	25.5	72.3	2.1
nput Costs	42.2	31.2	44.4	53.3	2.2
rices Received for Services	-4.4	-6.2	13.0	69.6	17.4
Operating Margin	-13.0	-35.4	19.6	47.8	32.6

Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-2.1	4.5	23.4	51.1	25.5

Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Uncertainty	34.0	30.0	40.4	53.2	6.4

Business Indicators: Year/Year

Business Indicators: All Firms Current Quarter (versus same quarter a year ago)							
			% Reporting Increase	% Reporting No Change	% Reporting Decrease		
Level of Business Activity	16.7	1.5	45.5	25.8	28.8		
Capital Expenditures	10.1	7.7	41.1	27.9	31.0		
Supplier Delivery Time	-5.4	-12.8	14.6	65.4	20.0		
Employment	8.3	11.1	26.3	55.6	18.0		
Employee Hours	11.3	6.0	26.5	58.3	15.2		
Wages and Benefits	52.6	52.2	56.4	39.8	3.8		

Indicator			% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	13.7	10.0	41.1	31.5	27.4

Business Indicators: E&P Firms

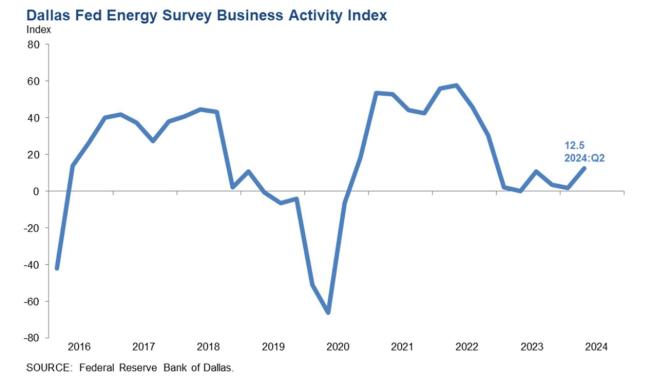
			% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	18.6	7.8	43.0	32.6	24.4
Oil Production	3.5	-1.1	38.4	26.7	34.9
Natural Gas Wellhead Production	2.3	-18.4	34.9	32.6	32.6
Capital Expenditures	1.2	2.3	33.3	34.5	32.1
Expected Level of Capital Expenditures Next Year	10.3	26.1	37.9	34.5	27.6
Supplier Delivery Time	-7.0	-18.4	11.8	69.4	18.8
mployment	5.8	13.5	20.7	64.4	14.9
mployee Hours	6.9	10.2	17.4	72.1	10.5
Vages and Benefits	51.7	52.2	54.0	43.7	2.3
inding and Development Costs	11.6	28.0	30.2	51.2	18.6
Lease Operating Expenses	38.0	38.6	50.6	36.8	12.6
ndicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened

Indicator					
Company Outlook	15.0	14.4	40.0	35.0	25.0

Business Indicators: O&G Support Services Firms Current Quarter (versus same quarter a year ago)

	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	13.0	-11.1	50.0	13.0	37.0
Utilization of Equipment	9.1	-11.1	45.5	18.2	36.4
Capital Expenditures	26.7	18.6	55.6	15.6	28.9
Supplier Delivery Time	-2.2	-2.2	20.0	57.8	22.2
Lag Time in Delivery of Firm's Services	6.8	6.7	18.2	70.5	11.4
Employment	13.1	6.6	37.0	39.1	23.9
Employment Hours	19.6	-2.2	43.5	32.6	23.9
Wages and Benefits	54.4	52.2	60.9	32.6	6.5
Input Costs	66.6	71.2	69.0	28.6	2.4
Prices Received for Services	11.4	13.3	34.1	43.2	22.7
Operating Margin	-15.9	-35.6	27.3	29.5	43.2
Indicator	Current Index	Dravious Inday	% Reporting	% Reporting	% Reporting

Indicator	Current Index		% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	11.4	2.2	43.2	25.0	31.8



Comments from Survey Respondents

These comments are from respondents' completed surveys and have been edited for publication. Comments from the Special Questions survey can be found below the <u>special questions</u>.

Exploration and Production (E&P) Firms

- The LNG (liquefied natural gas) pause is a cause for concern. Another concern is how increased electricity demand will be met due to the increasing use of artificial intelligence and data center growth. Also, efficiency gains in capital spending have led to record production with fewer rigs, fracking operations and employees. However, rising operating costs is a major concern due to minimal efficiency improvements. The industry needs a step-change, sustainable reduction in operating costs.
- Potential financial assurance bonding requirements are a concern for our business.
- Regulations continue to take a toll. SEC (Securities and Exchange Commission) climate disclosure proposals, the Environmental Protection Agency Quad Ob/c and the revised Clean Power Plan raise our costs and burden of compliance.
- Permitting and bureaucratic or political roadblocks are the greatest impairments to our business currently.
- Operating expenses continue to escalate, and the lack of availability of experienced people is a real challenge.
- Politically driven environmental regulations have caused increased upstream costs of operating, securing drilling and development permits, etc. Intermediate and long-term cost of capital is becoming more difficult to forecast. Geopolitical risk continues to increase.
- Electricity costs are increasing and will continue to increase due to the need to decrease field combustion and methane emissions. Our transmission and distribution provider will continue to be a bottleneck to the electrification of field operations.
- Overregulation of our industry by the federal government is hurting our economy.

- Candidate Trump has promised to lower the price of oil. He may again seek the help of Saudi Arabia to do this. If so, then I will expect a lower oil price and another recession in the U.S. oil patch.
- New Mexico and U.S. government increased restrictions and regulations are affecting our business
- New regulations prevent short- and long-term planning on every level of business investment.
- Uncertainty of the economy's direction makes it a real challenge in making company policy.
- Increasing regulatory constraint has increased expenses. Unless there is a change in Washington along with a change in attitude, the outlook for my business is definitely on the downswing.
- Natural gas prices are improving, and therefore cash flow is forecasted to improve. We are seeing more authorization-for-expenditure for drilling in-fill wells, which had been stalled for the past year or two.
- WTI (West Texas Intermediate) crude and Henry Hub natural gas pricing directly affects our business as we are operating existing wells and providing cash flow to investors. The prior quarter saw a significant improvement to Henry Hub natural gas pricing and also a more stable oil market that exceeded expectations at the end of the last quarter for this quarter of pricing.
- I hate to sound like a broken record, but federal intervention in the energy markets has confused everyone. Raising capital is really tough when so much uncertainty is being injected into the market. The constant drone of "we don't need fossil fuels" is taking its toll, the effects of which will someday be realized by the market, and it won't be pretty. The new methane tax is another headwind which will be absorbed by the producer. What a lot of people don't realize is that we are in a business which cannot simply pass on the additional costs to consumers. This is how you lose a very important segment of the energy supply chain, because they simply go out of business. The long-term economic impact of market interference will, in time, destabilize the overall economy.
- The last few years of mergers and acquistions have decreased activity in the oil patch. The majors are not going to exhaust reserves to raise domestic production until supply and demand curves meet their goals. They do not have to participate in treadmill drilling to keep incomes at a pace to develop reserves and pay back loans.

Oil and Gas Support Services Firms

- Industry consolidation is the main driver of change in the industry currently. Many competitors are extremely consolidated in their work profile and customer base. As consolidation occurs, often the acquiring company will not pick up the existing service companies. Once cut loose, these companies are searching for a lifeline and in many instances willing to work for negative margin rates, doing whatever they can to put money toward fixed period costs. We are experiencing very little flexibility in pricing to drive margin growth.
- Political and policy uncertainty remains the largest obstacle for the oil and gas industry. Our customers continue to defer or cancel planned drilling programs due to ongoing impacts of the stranded associated natural gas production in West Texas. Additionally, oil and gas operator consolidation is squeezing an over-supplied vendor market for all services, which will require consolidation or extensive bankruptcy in the vendor pool to rightsize the market. While this consolidation is ultimately good for the consumer as the larger oil companies operate much more efficiently, the service companies will suffer until the service market shrinks to match fewer operators more efficiently operating. Unfortunately, economics 101 is at play for the oil and gas service industry.
- Consolidation by E&P firms has curtailed investment in exploration. Our hope is that it's a temporary situation that will work itself out as the integration is completed.
- North American onshore activity is flat, with all growth in activity coming from international offshore.
- The uncertainty of regulatory policy between the Democratic and Republican parties makes us stop new capital spending commitments. Lead times and costs for electrical components needed for "the electrification of everything" increased dramatically. Regulatory bottlenecks in Texas with

the Electric Reliability Council of Texas, the Public Utility Commission and utility reviews have dramatically stymied timely development of much needed electrical infrastructure.

- Consolidation of the E&P sector in the Permian Basin continues to impact our business. Too many equipment providers are chasing too few E&P customers. Without consolidation within service or equipment providers, it will be a race to the bottom for pricing. The continued approval of these mergers by the Federal Trade Commission is surprising and will ultimately harm the Permian Basin.
- Our business, as oil and gas service companies, saw rollover business from the fourth quarter of 2023 being completed in the first quarter of 2024, which kept our numbers fairly constant. Toward the end of that quarter and throughout the second quarter, however, it seems there was an overall pullback of business as our customers were uncertain what the balance of 2024 was going to be like, especially with the upcoming election. There is still a prevailing feeling that this administration does not fully understand our business or the ramifications the policies they are pushing will have on the overall economy, not only in the short term but for years to come. Fossil fuels have been around for ages, and to think you can make this type of sweeping change virtually overnight is not only shortsighted, but next to impossible. I can only speak for our infinitesimal part of the industry, but the word of the day should be compromise, not utter destruction.
- Low natural gas prices and increasing consolidation of E&P companies combined with fiscal discipline on their part is leading to a decreased rig count as the second quarter of 2024 plays out.
- Activity and activity outlook have increased for the second half of 2024 versus the first half of 2024, but levels are still less than the first half of 2023. We are looking forward to the divestiture of non-core assets resulting from the M&A bonanza, but we don't expect those deals to result in new work with smaller operators until 2025.
- While business is still improving, North America continues to slow, which is more than offset by better activity in international and offshore markets.
- Our land and title services are fully contracted.

Cheap Canadian Oil Displaces Iraqi Imports on US West Coast 2024-06-24 12:00:00.5 GMT

By Robert Tuttle

(Bloomberg) -- US West Coast refiners are replacing their heavy Iraqi oil imports with cheaper crude from Canada as the newly expanded Trans Mountain pipeline reshuffles trade flows across the Pacific.

California and Washington are set to import about 150,000 barrels a day of Canadian crude by tanker in June — a seven-fold increase from average volumes, according to preliminary Vortexa data. At the same time, imports of Iraq's Basrah Heavy crude are poised to plunge to just 3,587 barrels a day from 76,000 barrels in May.

The Trans Mountain expansion, which started up in May, can bring 590,000 barrels a day of crude from Canada's oil sands to Vancouver for export. That's potentially a boon for refiners on the US West Coast, who would otherwise pay several dollars per barrel more for Iraqi crude. The trade flow also signals that the US will, for now, remain a dominant buyer of Canadian oil, even as the pipeline gives producers access to coveted Asia markets.

While Trans Mountain still isn't running at full capacity, the company expects 22 tankers to ship crude from Vancouver this month. More than 81,000 barrels a day are heading to China. Another 50,000 barrels a day is going to India, the first such movement off Canada's Pacific Coast.

As Canadian imports to the US West Coast rise, shipments of medium, low-sulfur Brazilian oil Tupi are falling along with Basrah Heavy. The benchmark heavy Western Canadian Select in Alberta trades at a discount to US benchmark West Texas Intermediate of about \$13 a barrel in Alberta, or about \$67 a barrel, according to General Index pricing on Bloomberg. Basrah Heavy trades at \$5.55 discount to dated Brent, or more than \$80 a barrel.

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https://www.reuters.com/business/energy/mexicos-new-pemex-refinery-still-needs-important-work-isfar-ready-sources-say-2024-06-24/

Exclusive: Mexico's new Pemex refinery still needs important work, is far from ready, sources say

By Adriana Barrera and Stefanie Eschenbacher June 24, 20244:09 AM MDT Updated an hour ago



[1/3] A view of the state oil company Pemex's Olmeca refinery in Dos Bocas, Paraiso, Mexico June 21, 2024

(1/3) A view of the state oil company Penecs's Olmeca refinery in Dos Bocas, Paraiso, Mexico June 21, 2024.
Item 1 of 3 A view of the state oil company Penecs's Olmeca refinery in Dos Bocas, Paraiso, Mexico June 21, 2024. REUTERS/Luis Manuel Lopez MEXICO CITY, June 24 (Reuters) - Mexican state energy company Pemex is unlikely to produce any commercially viable motor fuels at its new Olmeca refinery before the end of the year, five sources said, despite pressure that it should be ready before the outgoing president's term ends.

President Andres Manuel Lopez Obrador, a resource nationalist, inaugurated the 340,000-barrel-per-day refinery in July 2022 in his home state Tabasco, billing it as crucial to energy self-sufficiency for Mexico.

However, delays at the refinery in the port of Dos Bocas, opens new tab, whose cost has more than doubled to \$16.8 billion, means it will be up to his successor Claudia Sheinbaum to try to make the dream a reality when she takes office on Oct. 1.

As recently as last Thursday, Pemex CEO Octavio Romero insisted during an industry event the refinery would "work at full capacity next month."

Now, five sources familiar with the operations told Reuters that it was impossible to meet these targets and that progress had been exaggerated ahead of the June presidential election.

Neither Pemex nor the president's office responded to requests for comment.

Two sources with detailed knowledge of the operations said engineers were still working on individual parts of the refinery and will then face the even bigger challenge of linking them.

One of the sources, an engineer, described this last step as a hugely complex and "agonizing" process of trial and error that takes months.

The other source, also an engineer, said that in the most optimistic scenario the first of two production lines of the refinery would be ready between October and November.

"Technically and operationally, the refinery is fine so far but the problem is the expectations that have been created." the source said.

He added that the information shared publicly by officials "doesn't take into consideration more technical criteria" around how a refinery works.

Pemex officials had sought to demonstrate the refinery was operational by bringing a cargo of high-sulfur diesel to the Olmeca refinery to be turned into ultra-low-sulfur diesel but this was not produced from crude oil as is the plan.

Parts that still need work include the fluid catalytic cracking plant, where heavy petroleum fractions are converted into lighter products, and the hydrodesulfurization plant where sulfur is removed under high pressure and high-temperature.

Another challenge for engineers will be the coker plant that converts and processes residual fuel oil, the source said.

NATIONAL PRIDE

The refinery is by far the biggest of various energy projects running behind schedule and the two sources said Mexico would not follow through with hundreds of thousands of barrels of crude oil export cuts but continue importing diesel and gasoline instead.

None of the sources said the construction of the refinery was inherently flawed and that it is too early to determine how the delay would affect public finances because refining margins are not known.

Independent experts have long argued Pemex, a matter of national pride for most Mexicans, should instead have invested in much more profitable exploration and production instead of refining.

There were also concerns over just how rushed the project was, sources said, and how its progress had been exaggerated for political reasons which has disrupted markets.

In March, Pemex ordered its trading arm to cancel exports of 436,000 barrels of crude oil it said it needed for the domestic refineries. In April, it announced export cuts of another 330,000 barrels, only to backtrack shortly afterwards.

Then, Pemex requested only 16,300 bpd of crude oil for the new Olmeca refinery as of mid-May - just about 1% of what the state company pumps and less than 5% of its capacity.

One of the sources, a trader familiar with the export schedule, said the refinery was so delayed that it was now not even able to take in such a small load.

Despite being a crude oil producer, Mexico imports most of its motor fuels. Last year, it exported crude oil worth more than \$31 billion and imported various types hydrocarbon products - including gasoline and diesel - worth just under \$31 billion.

Lopez Obrador, who has staked his legacy on rescuing debt-laden Pemex and making Mexico self-sufficient in energy, had promised shortly after taking office in late 2018 that the refinery would be constructed in a record time of three years.

Proposals from several private companies were deemed too expensive, with Lopez Obrador arguing that savings from his fight to root out corruption would make the refinery cheaper. The final price tag, however, will be much higher than those proposals.

In another setback for his agenda, new coker plants aimed at boosting the efficiency of two older refineries in Tula and Salamanca are also still not ready, two separate sources said.

Pemex's other ailing refineries - including one that went online 118 years ago - struggle to efficiently process the heavy sour Maya crude Pemex pumps. They leave the country with volumes of highly polluting fuel oil that are so large, they exceed gasoline and diesel production.

This sludge-like waste product, deemed by international standards too dirty for almost every other use, has long been burnt by state utility CFE to generate electricity - particularly bad for air quality.

Reporting by Adriana Barrera, Stefanie Eschenbacher and Ana Isabel Martinez Editing by Stephen Eisenhammer and Marguerita Choy

Octavio Romero Oropeza highlights the transformation of PEMEX during the inauguration of the XVIII Mexican Petroleum Congress

20/06/2024 | 13

• Debt reduction, production of 54 new fields, greater crude oil processing, fertilizer production, recovery of sales in the domestic market and labor justice, are some of the achievements achieved by the current administration

The CEO of Petróleos Mexicanos (PEMEX), Octavio Romero Oropeza, on behalf of the President of Mexico, Andrés Manuel López Obrador, inaugurated the work of the XVIII Mexican Petroleum Congress 2024, an event that takes place for the first time in the city of Tampico, Tamaulipas, from June 20 to 22.

At the Tampico Convention and Exhibition Center (Expo), Romero Oropeza explained to the attendees that this administration achieved the stabilization and growth of the proven reserve (1P) by 7,500 million barrels of crude oil equivalent (MMboe). In addition, the liquids production goal was reached by achieving 1,852 thousand barrels per day (Mbd). In 2024, PEMEX contributes 97% to oil production and 98% of national gas.

He said that investment was redirected to onshore basins and shallow waters, which has allowed 54 new fields to be put into production: 31 offshore and 23 onshore, which contribute 567 thousand barrels per day of incremental production, that is, more than 5 times the 99 thousand barrels of the previous administration.

Similarly, he stressed that it has been possible to reduce the development times of the new fields, from 8 years to one, thanks to the optimization of resources, construction and installation of structures and pipelines, as well as the acquisition and modernization of drilling equipment.

The Head of PEMEX pointed out that by the end of 2024 the crude oil process is projected to reach 1,439 thousand barrels per day (Mbd) thanks to the National Refining System (SNR), in conjunction with Deer Park and the entry into operation of the Olmeca Refinery. As for the production of petroleum products (gasoline, diesel and jet fuel), it is expected to reach 1,258 Mbd by September 2024 including SNR and Deer Park.\

On the subject of fertilizers, he said that, in June, the production of the second ammonia plant and the second urea plant began, which will double production, reaching, by the end of 2024, a volume of 1,535 thousand tons, which will guarantee that the program of the Government of Mexico is supplied 100% with PEMEX fertilizers.

During his speech, he stressed that this management allocated 12,700 million pesos to address 852 critical risks and by the end of 2024 they will be fully addressed.

On the other hand, he stressed that the institution has recovered its sales in the domestic market in items such as gasoline, diesel, jet fuel and LP gas. In the period from 2021 to 2024, there was an evolution of the share of domestic sales in PEMEX's total revenues, whose percentage grew almost 10 points, from 66.1 to 75.5, a factor that contributes to its financial strengthening.

The director of PEMEX shared that in the financial aspect the results of the oil company continue to be favorable, since it was possible to reduce the balance of the debt by 30 billion dollars during this management. He added that, although PEMEX has received 952 billion pesos (mmdp) from the Federal Government, of which 561 billion pesos were allocated to debt payment and 391 billion pesos to infrastructure, the institution has contributed 4,025 billion pesos in contributions for the payment of taxes and duties, bringing the net contribution to 3,073 billion pesos.

In environmental matters, this administration has reduced greenhouse gas emissions, 64% of the emissions index of the gas process and increased water reuse. In addition, energy efficiency has been prioritized in PEMEX's industrial processes and the Jaguaroundi and Tuzandépetl ecological parks are maintained as protected conservation areas.

Regarding labor justice, he mentioned that, from January 2019 to June 2024, PEMEX has basified 28 thousand 978 workers, projecting to reach a total of 30 thousand by the end of the administration; Likewise, 85,770 promotions have been applied and 20,991 workers have retired. Both promotions and basifications have not increased spending on personal services.

Finally, he recognized the work carried out every year by the organizers to successfully develop this congress which, in its 18th edition, will be attended by 144 companies related to the energy industry, more than six thousand participants and 794 stands of different companies.

Comprehensive start-up of Olmeca refinery continues to be postponed

Rebajan pronóstico

En el último mes, Pemex redujo su pronóstico de producción de gasolina, diésel y turbosina en el SNR para el cierre del 2024 en 31,000 barriles diarios, pasando de 759,000 a 728,000 barriles diarios.



By Karol García

Friday, June 21, 2024 - 00:05

<u>ReadSpeaker</u>

With the extension, the expectation of crude oil processing in the complex for all of 2024 is also reduced from 177,000 to 163,000 barrels per day; The director of the state-owned company projects "a shortage" of 84,000 barrels per day of fuels by the end of the year that will continue to be imported.

Petróleos Mexicanos (Pemex) again delayed the full start of operations of its new Olmeca refinery located in Paraíso, Tabasco, which will now produce fuel until the second half of this year, to close at an average annual volume of 163,000 barrels per day processed of crude oil, which is 8% lower than the government's latest estimate.

This was explained by the general director of the company, Octavio Romero Oropeza, who appeared at the Mexican Petroleum Congress in Tampico, Tamaulipas, where he also admitted that this six-year term will not reach the promised goal that they called "energy sovereignty", which meant stopping importing automotive fuels.

"It is not going to be possible, we are no longer there," he said in front of businessmen and high-level officials of the national oil exploration and production industry, since, according to forecasts, there will be a lack of 84,000 barrels per day that will still be purchased from other companies in the world by the end of 2024, but the rest of the national demand for gasoline, diesel and jet fuel, which will be 1.2 million barrels per day, will be produced by Pemex, in the country or at its Deer Park plant.

The projected increase in fuel production will be 33.5% between the actual production reported by Pemex Industrial Transformation in the average between January and April, which is 545,000 barrels per day and the 728,000 barrels per day with which it intends to close the year, only in the National Refining System.

To this production will be added the 248,000 barrels per day that Pemex will maintain as imports from the Deer Park refinery, 50% of which it bought from the Anglo-Dutch Shell two years ago, so although it is a product made by personnel and with equipment that belongs to Pemex, it is imported fuel.

Romero Oropeza also explained that the level of operation of the six refineries in the country will be 1,002 million barrels per day of crude oil processing in the annual average of 2024, although between January and April it has averaged 976,000 barrels per day.

"This increase will come from the fact that we will finish the historical repair that has been made to the refineries that almost left us as scrap metal, because they wanted to get rid of them, but we have made historic investments so that they continue to belong to Mexicans and continue to generate value for us," he said. In total, Pemex has invested more than 75,000 million pesos in the rehabilitation of refineries, which began the six-year term with a crude process of less than 560,000 barrels per day.

However, the executive regretted that self-sufficiency will not be achieved by the end of the six-year term, because the placement of the new coker plant in Tula, Hidalgo, to process fuel oil in Salamanca, Guanajuato, and this refining center will be completed this year, but the similar plant in Salina Cruz, Oaxaca, is 64% complete and will be completed until next year.

In the most recent commemoration of the Anniversary of the Oil Expropriation, Romero Oropeza promised that it would end 2024 with an annual average of 177,000 barrels per day of process, which again reduced the outlook of Dos Bocas, a refinery that is still in tests processing the unfinished diesel that arrives by ship from Madero, Tamaulipas.

In this six-year term, the state oil company received contributions of 952,000 million pesos. "See it as if they gave it to us or as if they stopped charging us (...) no government had ever done what the president of the Republic did in the current administration, but Pemex is delivering more than three billion to the federation in these years, what is the bottomless barrel?" said the official. Of the 952,000 million received, 561,000 million were destined to pay the debt, 320,000 were for the construction of the Olmeca refinery, 48,000 million to complement the rehabilitation of the six refineries and 23,000 million for the purchase of Deer Park.

karol.garcia@eleconomista.mx

Venezuela's May oil exports rise 30% during US wind-down period

By <u>Marianna Parraga</u> and <u>Mircely Guanipa</u> June 3, 20247:06 AM MDTUpdated 5 hours ago

- Summary
- Companies
- Increase reflects buyers taking oil before US sanctions return
- Top destinations for oil were Asia, United States and Europe
- OPEC-member nation rebuilds stocks of Merey 16, diluted crude

HOUSTON/MARACAY, Venezuela, June 3 (Reuters) - Venezuela's oil exports recovered in May from a low figure the previous month as state oil company PDVSA's customers rushed to take cargoes ahead of the resumption of U.S. sanctions on the South American country.

The U.S. Treasury Department in April <u>did not renew</u> a broad license that had allowed Venezuela to freely export its oil, but gave companies until the end of May to complete transactions, including crude and fuel sales. It also began issuing individual authorizations to energy firms doing business with Venezuela.

A total of 50 vessels departed Venezuelan waters last month carrying an average 708,900 barrels per day (bpd) of crude and fuel, and 614,000 tons of petrochemicals and oil byproducts, according to internal PDVSA documents and shipping data from financial firm LSEG.

The volume of oil shipped in May was 30% larger than in April, and 7% above the same month a year earlier. Exports of petrochemicals and byproducts were the highest in 13 months, the data showed.

Over a third of total exports, or 250,000 bpd, were bound for Asia. The United States was the second largest recipient with an average of 205,000 bpd sent by <u>U.S. oil major Chevron, opens new</u> tab(CVX.N), opens new tab to its own refineries and others, followed by Europe with 129,000 bpd.

Shipments to political ally Cuba rose to some 70,000 bpd from 23,000 bpd the previous month, driven by larger crude oil deliveries, according to the data.

Following the completion of maintenance work at some crude upgraders and more imports of diluents, PDVSA's inventories of diluted crude oil rose to almost 5 million barrels. Stocks of the OPEC-member nation's flagship Merey 16 crude also recovered to almost 3 million barrels at the end of the month, one of the documents showed.

Venezuela imported some 68,000 bpd of heavy naphtha and blendstock for producing gasoline, above the 57,000 bpd of April.

Washington since mid-April has granted individual licenses to companies including France's Maurel & Prom (MAUP.PA), opens new tab, Spain's Repsol (REP.MC), opens new tab and (BP.L), opens new tab to do oil and gas business with Venezuela. More than a dozen others are waiting for green light.

Reporting by k in Houston and Mircely Guanipa in Maracay, Venezuela; editing by David Evans Our Standards: <u>The Thomson Reuters Trust Principles.</u>, opens new tab

06/28/2024 04:08:28 [BN] Bloomberg News

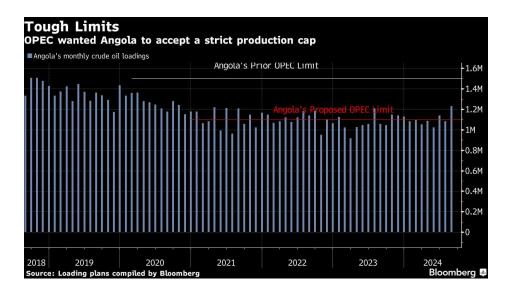
Angola's Rising Oil Exports Validate Decision to Quit OPEC (1)

- African nation lifts shipments to highest in almost four years
- Angola left producer group after dispute over output quota

By Bill Lehane, Grant Smith and Paul Burkhardt

(Bloomberg) -- Angola is set to export the most oil in almost four years in August, demonstrating why the country decided to leave OPEC.

Shipments will jump to 1.23 million barrels a day, loading plans show. The Organization of Petroleum Exporting Countries had tried to set a production limit of 1.1 million a day on Luanda, prompting Angola to depart the group. Output is not directly tied to monthly exports.



"They have a very clear mandate to grow production in Angola," said Paul McDade, chief executive officer of Afentra Plc, which holds licenses there and plans to boost output. The government "wants to see the country grow up from 1.1 million barrels a day," he said in an interview earlier this month.

Angola decided to quit OPEC in December because the production threshold – set by the group after an external review of the nation's capacity – was to be 400,000 barrels a day lower than a prior limit. That would have entrenched output restrictions and made it harder to go higher.

Read More: Angola Quits OPEC Amid Disagreement Over Oil Production Quotas

"Leaving OPEC has opened further opportunities for investment into the oil and gas sector," said Robert Besseling, CEO of advisory firm Pangea-Risk. It means the US and China are now vying to become Luanda's favored economic

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partner, he said.

The government has encouraged exploration companies – including Afentra – to invest more by granting them license extensions and favorable fiscal terms, McDade said.

The producers running Angola's fields have invested heavily in expansion and reservoir management to counter dwindling production, according to Energy Aspects. August's export flows also reflect the deferral of two cargoes that were meant to be shipped in July, said Dylan Hattingh, an analyst at the researcher.

Even without those adjustments, exports would still be the highest since last July and above OPEC's proposed lower limit, the loading plans show.

"The recent stabilization in production is likely the result of incremental field work and infill drilling undertaken over the past few years," Hattingh said. "Investment in offshore assets remains robust, and we anticipate this trend will continue under the management of experienced operators."

(Updates with analyst comment in fifth paragraph.)

--With assistance from Julian Lee.

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06/25/2024 07:42:07 [BN] Bloomberg News

Russia's Oil Exports Drop the Most in Three Months on Port Works

No cargoes left Primorsk or Kozmino for four days last week

By Julian Lee

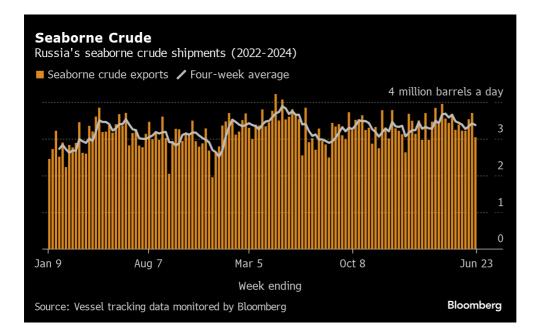
(Bloomberg) -- Russia's weekly crude exports fell by the most in more than three months in the seven days to June 23, with maintenance at key ports also trimming the less volatile four-week average.

Work at Primorsk on the Baltic Sea and Kozmino on the Pacific coast cut shipments through Russia's two busiest oil terminals, with no departures from either for four days during the week. But flows should recover in the week to June 30, with loadings already restarted at both affected ports.

Separately, the vessels that Moscow relies on to transport its oil are increasingly being targeted by Western authorities seeking to deplete the Kremlin's war chest. The European Union is the latest to slap sanctions on specific ships, identifying 17 crude oil and refined products carriers in its latest round of sanctions, as well as designating state-controlled shipping company Sovcomflot PJSC.

Three crude tankers recently sanctioned by the UK gathered in the Baltic Sea, where two of them feature in loading programs for the ports of Primorsk and Ust-Luga. It is unclear whether they will actually take on cargoes, though, with one seeming to have been replaced in the line-up already.

The slump in weekly export volumes was partly offset by a week-on-week increase in oil prices, which was particularly strong for shipments from western ports. As a result, the gross value of Russia's crude shipments fell by 14% in the seven days to June 23, compared with an 18% drop in shipments.



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News Story

The moves come as Moscow continues to test the effectiveness of sanctions imposed in response to its invasion of Ukraine in February 2022. Three of 21 tankers owned by state-controlled Sovcomflot PJSC have now loaded cargoes of crude after lying idle for several months.

The first, the SCF Primorye, switched its cargo to the Ocean Hermana while anchored in the Riau archipelago east of Singapore. The cargo has subsequently been moved to a third ship, identified as the VLCC Stellar Oracle, now named Saint Light, by TankerTrackers.com, which specializes in interpreting satellite imagery to spot sanctions-busting tankers.



Vessels identified by TankerTrackers.com and Bloomberg as the Saint Light and Ocean Hermana conducting a shipto-ship cargo transfer in the Riau archipelago on June 25, 2024.

The second, the Bratsk, disappeared from automated tracking systems west of Sumatra on June 13 and seemed at the time to be heading for the Sunda Strait between the island and Java. Satellite imagery viewed by Bloomberg suggests that it, too, is now anchored in the Riau archipelago. The Belgorod, the third sanctioned tanker to load a cargo, was last seen near the southern tip of India on Monday.

Crude Shipments

A total of 27 tankers loaded 21.29 million barrels of Russian crude in the week to June 23, vessel-tracking data and port agent reports show. That was down sharply from 25.91 million barrels the previous week.

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Tankers Loading Crud 27 tankers loaded Russian cru			
Week ending	June 23	June 16	June 9
Primorsk (Baltic)	3	10	8
Ust-Luga (Baltic)	7	7	4
Novorossiysk (Black Sea)	7	4	5
Murmansk (Arctic)	4	2	2
Kozmino (Pacific)	3	9	10
De Kastri (Pacific)	2	1	3
Prigorodnoye (Pacific)	1	1	0
Total	27	34	32
Source: Vessel tracking data moni Note: Based on date of completior cargoes identified as Kazakhstan'	n of cargo loading. E	xcludes ships loading	Bloomberg

Russia's seaborne crude flows in the week to June 23 dropped by 660,000 barrels a day to 3.04 million, the lowest in more than three months. The less volatile four-week average was also down, falling by about 45,000 barrels a day to 3.37 million.

A week-on-week slump in shipments from Russia's two most important crude export ports – Primorsk on the Baltic Sea and Kozmino on the Pacific coast – was partly offset by more ships leaving Novorossiysk and the Arctic terminals at Murmansk.

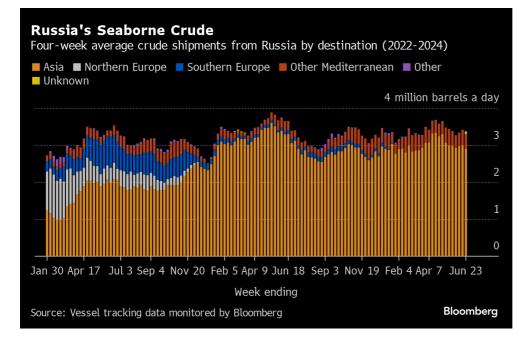
The gap in the Primorsk loading program, with no loadings scheduled to commence between June 18 and June 22, suggests a period of maintenance work was the reason for the halt in flows from the port for most of the week. It's likely that work was also behind the lower shipments from Kozmino, with no vessel activity at the port for several days. Flows from both ports are expected to rebound in the coming week.

After almost two months out of service, the Zaliv Vostok shuttle tanker arrived back at Sakhalin Island from a shipyard in China toward the end of the week, loading a cargo on Sunday.

After last week's slump, crude shipments so far this year are running about 10,000 barrels a day above the average for 2023.

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Russia terminated its export targets at the end of May, opting instead to restrict production, in line with its partners in the OPEC+ oil producers' group. The country's output target is set at 8.978 million barrels a day until the end of September, after which it is scheduled to rise at a rate of 39,000 barrels a day each month until September 2025, as long as market conditions allow.

No cargoes of Kazakhstan's KEBCO were loaded during the week.

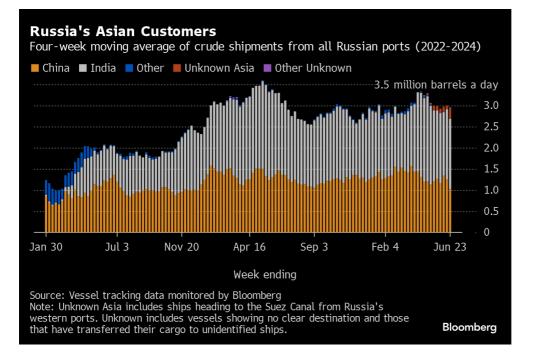
Flows by Destination

• Asia

Observed shipments to Russia's Asian customers, including those showing no final destination, slipped back below 3 million barrels a day in the four weeks to June 23. Shipments averaged 2.96 million barrels a day in the period to June 23, from just over 3 million in the period to June 16.

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About 1.03 million barrels a day of crude was loaded onto tankers heading to China. The Asian nation's seaborne imports are boosted by about 800,000 barrels a day of crude delivered from Russia by pipeline, either directly, or via Kazakhstan.

Flows on ships signaling destinations in India averaged about 1.66 million barrels a day, unchanged from the revised figure for the period to June 16.

Both the Chinese and Indian figures are likely to rise as the discharge ports become clear for vessels that are not currently showing final destinations.

The equivalent of about 250,000 barrels a day was on vessels signaling Port Said or Suez in Egypt. Those voyages typically end at ports in India or China and show up as "Unknown Asia" until a final destination becomes apparent.

The "Other Unknown" volumes, running at about 30,000 barrels a day in the four weeks to June 23, are those on tankers showing no clear destination. Most originate from Russia's western ports and go on to transit the Suez Canal, but some could end up in Turkey. Others may be moved from one vessel to another, with the majority of such transfers now taking place in the Mediterranean, most recently off Morocco, or near Sohar in Oman.

Russia's oil flows continue to be complicated by the Greek navy carrying out exercises in an area that's become synonymous with the transfer of the nation's crude. These activities have now been extended to July 15.

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News Story

Crude Shipments to Asia

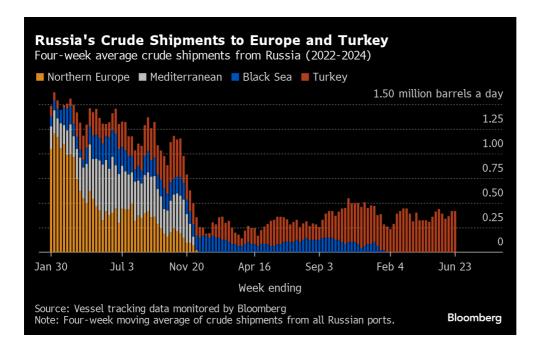
Shipments of Russian crude to Asian buyers in million barrels a day

				Unknown	Other	
4 weeks ending	China	India	Other	Asia	Unknown	Total
May 19, 2024	1.20	1.68	0.00	0.12	0.00	3.00
May 26, 2024	1.26	1.62	0.00	0.10	0.00	2.99
June 2, 2024	1.17	1.66	0.00	0.10	0.00	2.93
June 9, 2024	1.34	1.50	0.00	0.13	0.00	2.97
June 16, 2024	1.25	1.66	0.00	0.09	0.00	3.00
June 23, 2024	1.03	1.66	0.00	0.25	0.03	2.96
Source: Vessel tracking	data compiled b	y Bloomberg)			Bloomberg

• Europe and Turkey

Russia's seaborne crude exports to European countries have ceased, with flows to Bulgaria halted at the end of last year. Moscow also lost about 500,000 barrels a day of pipeline exports to Poland and Germany at the start of 2023, when those countries stopped purchases.

Turkey is now the only short-haul market for shipments from Russia's western ports, with flows in the 28 days to June 23 stable at about 420,000 barrels a day.



Export Value

The gross value of Russia's crude exports fell to \$1.52 billion in the seven days to June 23 from about \$1.79 billion in

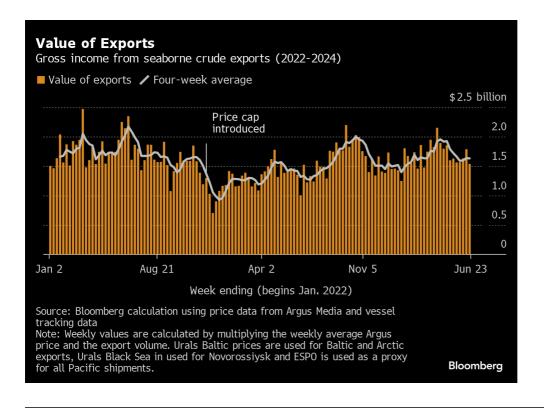
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the period to June 16. The slump in flows was partly offset by the biggest week-on-week jump in prices for Balticloading crude since September.

Export values at Baltic and Black Sea ports were up week-on-week by almost \$5 a barrel, while key Pacific grade ESPO rose by about \$1.80 a barrel. Delivered prices in India also rose, up by about \$4.70 a barrel, all according to numbers from Argus Media.

Four-week average income edged lower, slipping by about \$6 million to \$1.63 billion a week. The four-week average peak of \$2.17 billion a week was reached in the period to June 19, 2022.

During the first four weeks after the Group of Seven nations' price cap on Russian crude exports came into effect in early December 2022, the value of seaborne flows fell to a low of \$930 million a week, but soon recovered.



NOTES

This story forms part of a weekly series tracking shipments of crude from Russian export terminals and the gross value of those flows. The next update will be on Tuesday, July 2.

All figures exclude cargoes identified as Kazakhstan's KEBCO grade. Those are shipments made by KazTransoil JSC that transit Russia for export through Novorossiysk and Ust-Luga and are not subject to European Union sanctions or a price cap. The Kazakh barrels are blended with crude of Russian origin to create a uniform export stream. Since Russia's invasion of Ukraine, Kazakhstan has rebranded its cargoes to distinguish them from those shipped by Russian companies.

Vessel-tracking data are cross-checked against port agent reports as well as flows and ship movements reported by

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other information providers including Kpler and Vortexa Ltd.

If you are reading this story on the Bloomberg terminal, click for a link to a PDF file of four-week average flows from Russia to key destinations.

--With assistance from Sherry Su.

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Geopolitical Update: Temperatures Rising

Analysis and Updates on Conflicts in Ukraine and the Middle East

March 27, 2024

RBC Capital Markets, LLC Helima Croft (Head of Global Commodity Strategy and MENA Research) (212) 618-7798; <u>helima.croft@rbccm.com</u>

President Biden faces the prospect of a cruel summer if the Russia-Ukraine and Middle East conflicts continue to pose risks to global energy supplies.

- This week brought more attacks by Ukraine on Russian refineries with drones circling back to two previously targeted refineries, Novokuibyshevsky and Kuibyshevsky, in the Samara region, resulting in significant damage to the latter's primary crude distillation unit. As a result, we now count 5 refineries facing significant throughput disruptions, with our estimates for downed refining capacity rising to 13% of Russia's total. These attacks seem to be serving the twin purposes of partially denying the Russian frontlines diesel as well as reducing Russia's essential energy revenue to fund the war. Preliminary estimates already show aggregate Russian refinery runs in March down 650 kb/d y/y. While it is still too early to see how these disruptions will ultimately affect seaborne refined product export flows, the largest impacts would be seen on global gasoil and fuel oil markets. Turkey, Africa, and Brazil have been the top destinations for Russian gasoil since exports were barred from Europe.
- There have been reports that the White House has tried to dissuade Kyiv from this strategy, fearing the energy price impact we find this entirely credible based on our conversations. As we have repeatedly noted, the White House has sought to avert a Russian supply disruption and has shaped policy towards this end; including price caps designed as a release valve to ensure Russian barrels locked out of Europe would flow to Asia, or directly telling Ukraine to not target Black Sea oil tankers. However, with US assistance being held up in Congress, and Russia making battlefield gains, Ukraine and key regional allies appear to be questioning the utility of this energy bargain with Washington.
- A key dynamic worth watching is whether Congress moves to approve the \$60bln supplementary military, budgetary, and humanitarian aid package being held up in the House after already passing in the Senate. House Speaker Mike Johnson (R-LA) has signaled a willingness to hold a vote on Ukraine support after Congress's Easter recess, however at the time of writing, there are no clear indications of imminent passage. Moreover, with a complete cutoff of funding potentially in the offing if President Trump wins in November, the window for Ukraine to make battlefield advances in the two-year conflict may be closing.

- Hence, we will be closely watching whether Ukraine moves at some stage to target actual export facilities to strike a deeper blow on the Russian balance sheet. We continue to contend that Ukraine seemingly has the capability to target the majority of export facilities in western Russia, which would put ~60% of Russia's crude exports at risk. While Washington would certainly not be happy with such a move because of the serious price implications, Kyiv could decide that such asymmetrical measures may be necessary. Resilient energy revenue has been essential for Russia's continued military strength the 2024 budget contains record defense spending, with the Russian Federation for the time poised to spend over 6% of GDP on military and defense spending. At the same time, Moscow is forecasting a shrinking deficit based on an anticipated rise in revenue this year. According to the Carnegie Endowment, the 2024 budget is based on the assumption that revenue will climb by over a third to over ₽35tln (\$378bln), of which ₽11.5tln (\$124bln) is expected to come from the oil and gas sector.
- While OPEC is sitting on over 2 mb/d of spare capacity, we do not think the producer group would rush in to cool the rally and ramp up output given what transpired in the months immediately following the Russian invasion of Ukraine. Washington made unprecedented interventions in the market by releasing 180 mb from the SPR after the IEA and other market participants warned of a multimillion b/d Russian disruption that never materialized. Certainly, we do not see any indications that the recent run up in prices due to the heightened Russian infrastructure risk will prompt any policy reversal at next week's Joint Ministerial Monitoring Committee Meeting. Any serious shift will likely have to wait until the June 1 Ministerial Meeting, and even then, we believe the group will be very judicious when it comes to unwinding any cuts.
- Complicating the challenge for the White House is the lack of progress in resolving the six-month Middle East war. The Houthis continue to attack ships in the Red Sea, claiming six attacks on Tuesday, while Houthi officials this week have renewed threats against Saudi Arabia over providing support and airspace access to US jets conducting strikes in Yemen. In addition, the continuing exchange of fire between Hezbollah and Israel – with Hezbollah launching "dozens" of rockets in response to deadly Israeli strikes in southern Lebanon yesterday – still represents a serious contagion risk.
- Hence, it is our view that Washington may once again have to resort to policy tools such as the SPR if these twin conflicts continue to imperil global energy supplies. Certainly, this raises a campaign risk for President Biden, as his opponents will likely accuse him of endangering energy security by tapping further into the strategic reserve. However, if President Biden cannot find a way to ameliorate the risk from these conflicts, the White House may decide that SPR releases are more politically palatable than retail gasoline prices north of \$4/gallon for the summer driving season.

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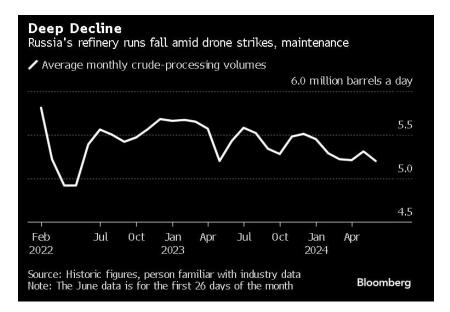
Russia's Oil Refining in June Declines to Lowest Since 2022 2024-06-28 15:01:52.627 GMT

By Bloomberg News

(Bloomberg) -- Russia's oil processing for the most of June dropped to levels last seen in spring of 2022, as Ukrainian drone strikes and seasonal maintenance curbed refinery operations.

The nation processed just under 5.2 million barrels a day of oil on average from June 1 to 26, according to a person with knowledge of industry data. That's more than 2% below the May average, historical figures show.

It's also the lowest level since May 2022, when Russia had to cut its oil processing as some foreign fuel buyers became reluctant to take the nation's petroleum products in the wake of the invasion in Ukraine.



The downstream segment, one of Russia's most important industries, has been a target of Ukrainian drone attacks since late January, as Kyiv seeks to curb fuel supplies to the front line and cut the flow of petrodollars to the Kremlin's coffers. Ukraine has been increasing the range and frequency of the strikes, sometimes attacking oil-processing facilities located more than a thousand miles apart.

While the drones mainly targeted smaller independent refineries in Russia's south during June, the effects of the strikes coincided with seasonal maintenance at several other facilities, leading to the lower average daily oil processing across the nation.

Russia's refinery runs are scrutinized by oil market watchers because performance of the downstream segment is one of the few remaining gauges — alongside seaborne crude exports — that indicate the nation's crude production after the government classified official output data.

As the Russian government prioritizes fuel supplies to the domestic market, any decline in the nation's crude processing also may signal lower oil-product exports. The government in Moscow restricted gasoline shipments to foreign markets from March 1 for six months amid earlier drone attacks. The ban was temporarily lifted from May 20 through end-June as the domestic market was well supplied and the main supply risk flipped from shortage to overstocking. The government has mulled extending the permission to export gasoline for another month, but so far no official decision has been taken.

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Islamic Republic News Agency

https://en.irna.ir/news/85516526/Minister-Iran-oil-production-to-reach-4-million-bpd

Jun 22, 2024, 1:20 PM

Minister: Iran oil production to reach 4 million bpd



Tehran, IRNA – Iranian Oil Minister Javad Owji has said that the country plans to increase its daily crude production to 4 million barrels per day (bpd) by late March 2025.

The minister made the announcement on Saturday as he was elaborating on the achievements by the administration of the late President Ebrahim Raisi in the oil industry over the past three years. He was speaking at a joint press conference with Government Spokesman Ali Bahadori Jahromi and Head of the Department of the Environment Ali Salajegheh.

Owji said that the Raisi administration has already managed to increase oil production from 2.2 to 3.6 million bpd and is now planning to increase the daily output to 4 million barrels by the end of the current Iranian year, which falls on March 20, 2025.

The administration also increased the annual gas production by 53 million cubic meters, which marked a 5% growth, he added.

Gas extraction from the South Pars gas field, which is shared with Qatar, has increased as well, he said, adding that Iran's extraction is 75 to 100 million cubic meters higher.

According to the minister, Iran's annual petrochemical production has now reached 100 million metric tons following a 10-percent growth. At least four petrochemical projects are also set to be inaugurated, Owji said, without specifying the projects and the timing of the inauguration.

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https://www.nhc.noaa.gov/aboutsshws.php



Saffir-Simpson Hurricane Wind Scale

Climatology | Names | Wind Scale | Extremes | Models | Breakpoints

The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous, however, and require preventative measures. In the western North Pacific, the term "super typhoon" is used for tropical cyclones with sustained winds exceeding 150 mph.

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	74-95 mph 64-82 kt 119-153 km/h	Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96-110 mph 83-95 kt 154-177 km/h	Extremely dangerous winds will cause extensive damage: Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3 (major)	111-129 mph 96-112 kt 178-208 km/h	Devastating damage will occur: Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
4 (major)	130-156 mph 113-136 kt 209-251 km/h	Catastrophic damage will occur: Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5 (major)	157 mph or higher 137 kt or higher 252 km/h or higher	Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

The Liberals will be forced to act on EV tariffs, even if it slows down their climate goals



KELLY CRYDERMAN

Doug Ford's call last week for Ottawa to immediately match or exceed new U.S. import taxes on "artificially cheap electric vehicles" from China was inevitable, as is the fact the federal government will have to heed the Ontario Premier's advice.

This will happen despite the considerable downsides. New tariffs on Chinese EV imports could impede the federal Liberals' climate-focused plans for 100-per-cent, zero-emission vehicle sales by 2035, and – keenly for all of Canada – open a precipitous new front in trade-wrangling with China.

But at stake are consequential items, like the more than \$50-billion of federal and provincial funds poured into building a supply chain, and the dream of turning central Canada into an electric-vehicle-industry middle power. And yes, Canada's relationship with its still-largest trading partner.

Chinese automakers lead global production of EVs and now churn out more than half the world's supply. In May, U.S. President Joe Biden – eager to protect and bolster a U.S.-focused EV supply chain, and arguing that China is flooding the world with artificially low-priced exports – announced steep tariff increases on an array of Chinese imports, including lithium-ion EV batteries, and battery components such as natural graphite and permanent magnets. Most notably, his administration quadrupled duties on actual EVs to more than 100 per cent.

That compares to a tariff of 6.1 per cent on Chinese EVs here in Canada.

Chinese brands aren't really a part of Canada's EV market right now. But, according to <u>Bloomberg,</u> Canada is seeing a significant surge in imports of Chinese-made EVs, particularly Tesla Inc. models made in Shanghai. The number of cars arriving from China at the port of Vancouver rose more than fivefold last year, to 44,400. And Canadians get a \$5,000 point-of-sale rebate on these models, to boot.

This is a problem. No matter what, Canada needs to avoid looking like a backdoor to Chinese EVs and EV parts. Already, the U.S. has grown increasingly concerned about Mexico becoming a hub for Chinese goods to skirt U.S. tariffs, and U.S. Trade Representative Katherine Tai has <u>told reporters</u> to "stay tuned" on what it might do to counter that.

There will be a cost if Canada adds a tariff to Chinese imports, of course. Europe is already grappling with this. China <u>has opened an anti-dumping investigation</u> – an early step to setting its own tariffs – into imported pork and byproducts from the European Union, in response to curbs on its EV exports.

But to put into perspective what side Canada will come down on: Ontario's total two-way trade with the U.S. in 2023 was <u>valued at around \$500-billion</u>, whereas its trade with China is about one-tenth that.

Also in question is the \$52.5-billion in government money given to 13 EV supply chain projects in Ontario and Quebec. This month, the Office of the Parliamentary Budget Officer estimated that federal support is \$31.4-billion and provincial contributions are \$21.1-billion. The government funding exceeds the private-sector commitment by a cool \$6-billion, according to the PBO. But governments are betting on planting the seeds for a much broader industry to flourish.

Many Canadians would like to own an EV. And the federal Liberals certainly want to encourage this, even bringing in <u>a heavy-handed</u> ban on the sale of vehicles with tailpipe emissions by 2035. This is one of the climate-focused government's signature policies.

Without guardrails, this policy is also a gift to Chinese manufacturing, with all of its warts. Mr. Ford came armed with an environmental, social and governance (ESG) argument about why it might be a good idea to slow down Chinese exports. In his statement, he noted China is "taking every advantage of low labour standards and dirty energy" – the latter a reference to its copious use of coal.

Still, the state of household finances is Canadians' biggest concern right now, and will remain so for several years. If Chinese automakers start selling reasonably priced EVs in Canada that Canadians want to buy – rather than the smaller, more basic models sold domestically in China – it could help speed up EV adoption, Robert Karwel, a senior manager at J.D. Power's Toronto office, <u>told The Globe</u>. But it would be "potentially devastating" for Canada's fledging EV and battery industry.

Therein lies the conflict.

Prime Minister Justin Trudeau said last week that his government is "watching closely what the Americans and other allies have done," and said he had "significant" discussions with other G7 leaders on the topic at their summit in Italy earlier this month.

But Canada would be wise to move beyond these platitudes, and well before the U.S. presidential election in November. No matter who wins that race, American protectionism will rule the day, and thereby rule Canada's trade moves.



Press Release

EverGen Infrastructure Announces 20-Year RNG Offtake Agreement with FortisBC and Secures Long Term Feedstock Supply at the Fraser Valley Biogas Facility

- Agreement provides for the purchase of up to 160,000 GJs of RNG annually by FortisBC
- Feedstock supply agreement representing more than 50% of off-farm waste required to achieve name plate capacity

VANCOUVER, BRITISH COLUMBIA, June 24, 2024 – EverGen Infrastructure Corp.

("EverGen" or the "Company") (TSXV: EVGN) (OTCQX: EVGIF) is pleased to announce the execution of a 20-year offtake agreement with FortisBC Energy Inc ("FortisBC") through its wholly owned subsidiary Fraser Valley Biogas Ltd. ("FVB"), subject to the acceptance by the British Columbia Utilities Commission.

Under the terms of the agreement, FortisBC will purchase Renewable Natural Gas ("RNG") from FVB for injection into its natural gas system. This agreement ensures a stable and predictable supply of RNG for FortisBC, while providing EverGen with a dependable customer and long-term revenue stream.

"The execution of this agreement has further solidified EverGen's long-standing relationship with FortisBC." said EverGen CEO, Mischa Zajtmann. "We would like to thank FortisBC for their continued support as a valued stakeholder of the EverGen platform."

"We are pleased to continue our relationship with Evergen and Fraser Valley Biogas, one of our very first RNG suppliers," said David Bennett, director, renewable gas and low carbon fuels at FortisBC. "By continuing to increase our RNG supply, we are helping to reduce greenhouse gas emissions and supporting our vision to have around 75 per cent of the gas in our system be renewable and low-carbon by 2050."

EverGen has also secured a long-term feedstock supply agreement with a waste disposal consolidator in the region. The feedstock secured represents greater than 50% of the off-farm waste required to achieve name plate capacity.

"Securing this long-term energy rich waste, along with our previously secured feedstock streams, ensures input security for the FVB project." said EverGen CEO, Mischa Zajtmann. "With both offtake and feedstock agreements in place on a longterm basis, EverGen has significantly de-risked the FVB project."

About Fraser Valley Biogas

FVB, a wholly owned subsidiary of EverGen, is the original producing RNG project in Western Canada and first project to inject RNG into FortisBC's network, part of the North American natural gas infrastructure network. The facility combines anaerobic digestion and biogas upgrading to produce RNG, including converting agricultural waste from local dairy farms. FVB also produces an organic liquid fertilizer that is used by surrounding farms to displace synthetic fertilizers. This macronutrient rich, odour free fertilizer has been a key part of many local farms' nutrient management planning for over a decade.

About EverGen Infrastructure Corp.

EverGen, Canada's Renewable Natural Gas Infrastructure Platform, is combating climate change and helping communities contribute to a sustainable future. Headquartered on the West Coast of Canada, EverGen is an established independent renewable energy producer which acquires, develops, builds, owns, and operates a portfolio of Renewable Natural Gas, waste to energy, and related infrastructure projects. EverGen is focused on Canada, with continued growth expected across other regions in North America and beyond.

For more information about EverGen Infrastructure Corp. and our projects, please visit <u>www.evergeninfra.com</u>.

Forward-Looking Information

This news release contains certain forward-looking statements and/or forward-looking information (collectively, "forward looking statements") within the meaning of applicable securities laws. When used in this release, such words as "would", "will", "anticipates", "believes", "explores", "expects" and similar expressions, as they relate to EverGen, or its management, are intended to identify such forward-looking statements. More particularly, and without limitation, this press release contains forward looking statements and information concerning the Company's expectations regarding revenue growth and future financial or operating performance. Such forward-looking statements reflect the current views of EverGen with respect to future events, and are subject to certain risks, uncertainties and assumptions. Many factors could cause EverGen's actual results, performance or achievements to be materially different from any expected future results, performance can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do, what benefits EverGen will derive therefrom, and accordingly, readers are cautioned not to put undue reliance on the forward-looking statements contained in this press release.

The Company cautions that these forward-looking statements are subject to numerous risks and uncertainties. including but not limited to: the impact of general economic conditions in Canada, including the current inflationary environment; industry conditions including changes in laws and regulations and/or adoption of new environmental laws and regulations and changes in how they are interpreted and enforced, in Canada; volatility of prices for energy commodities; change in demand for clean energy to be offered by EverGen; competition; lack of availability of qualified personnel; obtaining required approvals of regulatory authorities in Canada; ability to access sufficient capital from internal and external sources; optimization and expansion of organic waste processing facilities and RNG feedstock; the realization of cost savings through synergies and efficiencies expected to be realized from the Company's completed acquisitions; the sufficiency of EverGen's liquidity to fund operations and to comply with covenants under its credit facility; continued growth through strategic acquisitions and consolidation opportunities; continued growth of the feedstock opportunity from municipal and commercial sources, and the factors discussed under "Risk Factors" in the Company's Annual Information Form dated April 22, 2024, which is available on SEDAR+ at www.sedarplus.ca, many of which are beyond the control of EverGen. Forward-looking statements included in this news release should not be read as guarantees of future performance or results. The forward-looking statements contained in this release are made as of the date of this release, and except as may be expressly required by applicable law, EverGen disclaims any intent, obligation or undertaking to publicly release any updates or revisions to any forward-

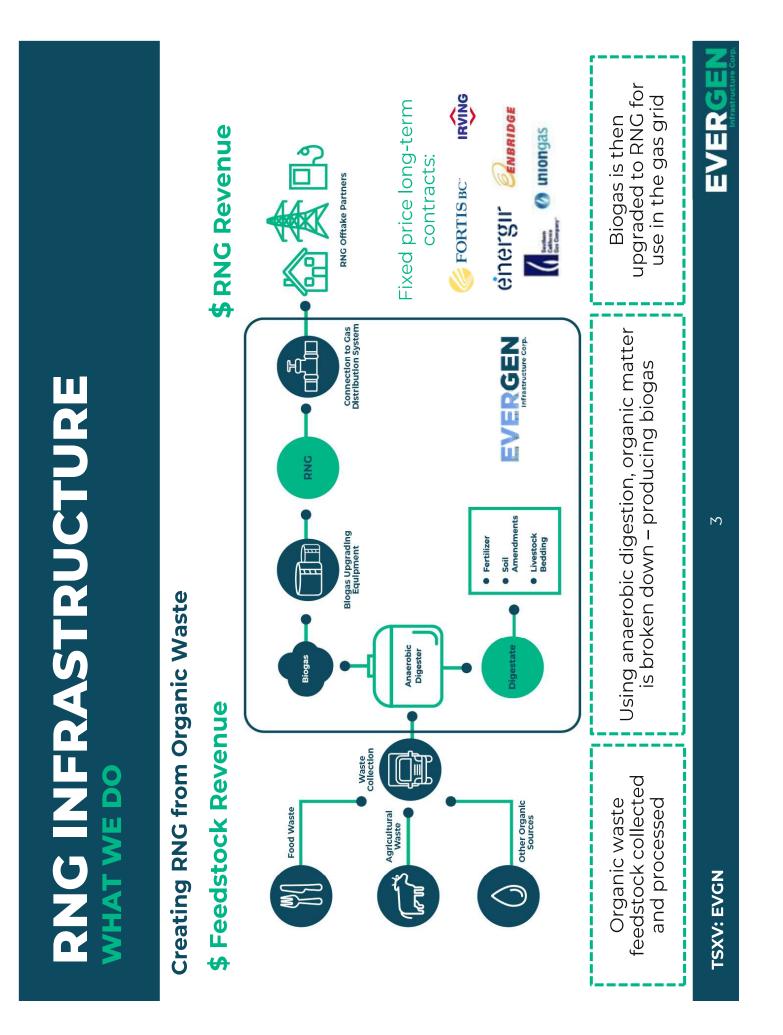


looking statements contained herein whether as a result of new information, future events or results or otherwise. This news release shall not constitute an offer to sell or the solicitation of an offer to buy the securities in any jurisdiction.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Contacts Co-founder & CEO Mischa Zajtmann 604-202-7004 <u>mischa@evergeninfra.com</u>





CANADA'S RNG PLATFORM



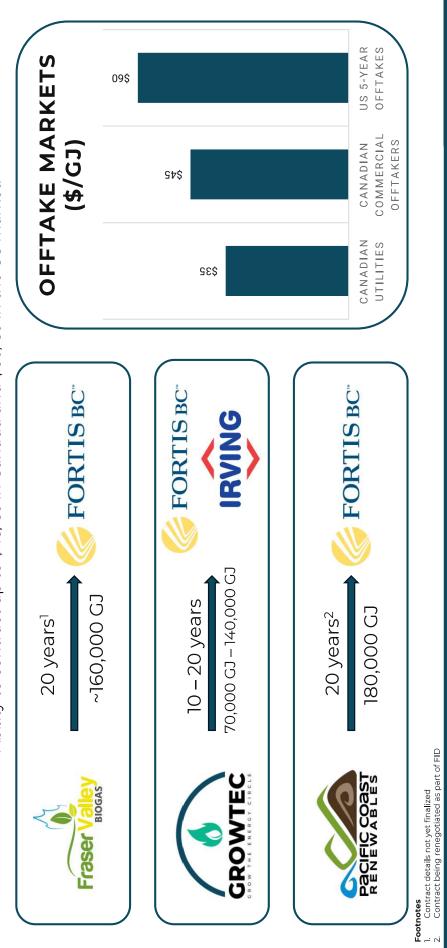
TSXV: EVGN

4

OUR OFFTAKE ADVANTAGE

Up to 480,000GJ contracted on a long-term basis generating a base case of ~\$12 million in annual RNG revenue

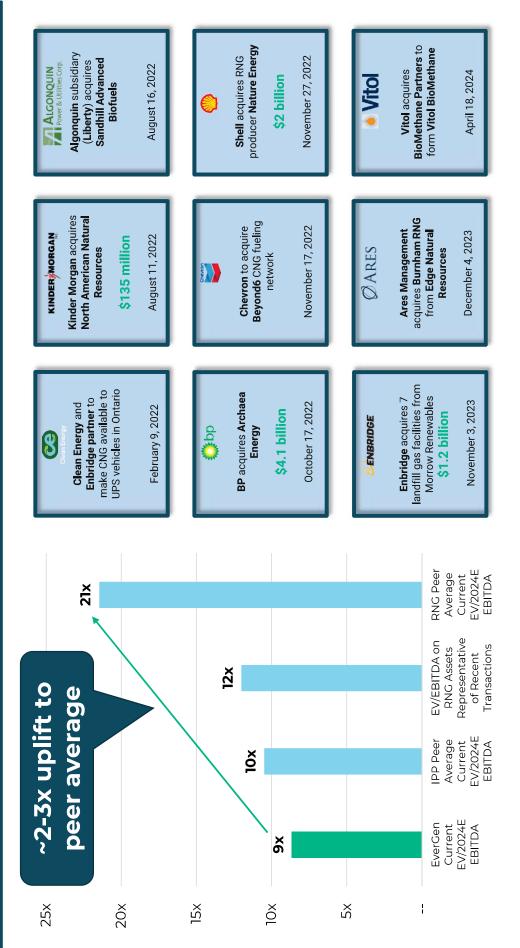
Long term offtakes in place or underway with Fortis BC underpinning robust project economics. Ability to contract up to \$45/GJ in Canada and \$60/GJ in the US market.



EVERGE

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TSXV: EVGN



Source: Desjardins Capital Markets, FactSet, as at May 13, 2024; analyst research

TSXV: EVGN

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RNG FACILITIES CORE OPERATING		
Fraser Valley Biogas ("FVB") Phase 1 Abbotsford, BC	Fraser	Fraser Valley Biogas ("FVB") Phase 2 Abbotsford, BC
CAPACITY: RNG: ~80,000 GJ/year	CAPACITY:	RNG: ~160,000 CJ/year
EBITDA : ~\$0.5M	EBITDA:	~\$5M
SUMMARY:	SUMMARY:	
 Processes ~50,000 tonnes of agriculture and ICI 	 Processes ~ 	Processes ~50-100,000 tonnes of agriculture and ICI
 Interim Forused Ontake in place for current volumes (long-term offtake being finalized) 	December 2023	Pridse z Cutrittilssiutitig & Fitst uds Delivered itt December 2023
 Revenue mix: 1) RNG 2) tip fees 	Expansion f	Expansion fully funded and on budget (~\$13M)
	 Initial expectance ~160,000 GJ 	Initial expectations are that the facility will exceed ~160,000 GJ/year when fully ramped-up
TSXV: EVGN	ω	EVERGEN Infrastructure Corp.



ORGANICS PROC CORE OPERATING	ROCESSING FACILITIES
<image/> <image/>	 Pacific Coast Renewables ("PCR")* Abbotsford, BC Apbotsford, BC Aq0,000 tonnes/year Historical avg tipping fee of \$80/tonne Historical avg tipping fee of \$80/tonne SUMMARY: Long term contracts with 3 key municipalities: Abbotsford, Coquitlam, Chilliwack Long term contracts with 3 key municipalities: Abbotsford, Coquitlam, Chilliwack Long term contracts with 3 key municipalities: Abbotsford, Coquitlam, Chilliwack Long term contracts with 3 key municipalities: Abbotsford, Coquitlam, Chilliwack Long term contracts with 3 key municipalities: Abbotsford, Coquitlam, Chilliwack Source of \$80/tonne NG expansion contracts with 3 key municipalities: Abbotsford, RNG expansion commercial FID expected in mid 2024 RNG expansion commercial FID expected in mid 2024 RNG expansion commercial FID expected in mid 2024 Benherton BC
Acgina, on Capacity: ~24,000 tonnes/year Capacity: ~24,000 tonnes/year SUMMARY I 0-yr Agreement secured with City of Regina (10-yr Agreement secured with City of Regina (57M debt facility secured (57M debt facility secured) (5	Denotion, Denotion, Denotion, Denotion, Advisor Adviso

DEVELOPMEN PROJECT RADIUS AS A		T PIPELINE ECONOMICS MODEL FOR GROWTH	NOMICS
/erGen Value Propositio evelopers = results in near	EverCen Value Proposition: providing RNG focused capital, execution and operational expertise to project developers = results in near-term opportunity to create value significantly exceeding investment spending	al, execution and operationa ue significantly exceeding ir	al expertise to project nvestment spending
		Key Drivers of Value:	alue:
		Advanced Stage of Development De-risks Project	Milestones Upcoming: Offtake / Feedstock / Cost Certainty
cquisition of 50% inte	Acquisition of 50% interest in Project Radius	Strong Synergies with Existing	Near-term FID / NTP Expected in
Large Scale 3-Phase RNG Project	600,000 GJ / Phase		
Stage of Development	Approaching FID	High Multiple (x) on Development	Flexible Funding / Monetization
Development Capital Investment	\$1.75 million	Stage Spending	Strategy
TSXV: EVGN	E		EVERGEN

25 06 2024

Lufthansa Group introduces Environmental Cost Surcharge

Environmental Cost Surcharge applies to departures from the 27 EU countries as well as the UK, Norway and Switzerland

Charge applies to all tickets issued from June 26, 2024 with departure from January 1, 2025

Lufthansa Group invests billions annually for more sustainable flying

The Lufthansa Group is introducing an Environmental Cost Surcharge. The surcharge is intended to cover part of the steadily rising additional costs due to regulatory environmental requirements. These include the statutory blending quota of initially two percent for Sustainable Aviation Fuel (SAF) for departures from European Union (EU) countries from January 1, 2025, adjustments to the EU Emissions Trading System (EU ETS) as well as other regulatory environmental costs such as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

The Environmental Cost Surcharge applies to all flights sold and operated by the Lufthansa Group departing from the 27 EU countries as well as the UK, Norway and Switzerland. The amount of the surcharge varies depending on the flight route and fare and is between 1 euro and 72 euros. The Environmental Cost Surcharge will be levied on all tickets issued from June 26, 2024 and applies to departures from January 1, 2025. The exact amount of the Environmental Cost Surcharge is shown on the Lufthansa Group Airlines booking pages in the price details.

The Lufthansa Group invests billions in new technologies every year and works together with partners on innovations that help to make flying more sustainable step by step and drive the scaling of key technologies beyond the Lufthansa Group. In addition, the Lufthansa Group has actively supported global climate and weather research for many years. However, the airline group will not be able to bear the successively increasing additional costs resulting from regulatory requirements in the coming years on its own. Part of these expected costs for the year 2025 are now to be covered by the new Environmental Cost Surcharge.

The Lufthansa Group has set itself ambitious climate protection targets and is aiming for a neutral CO_2 balance by 2050. By 2030, the aviation group aims to halve its net CO_2 emissions compared to 2019 through reduction and compensation measures. For effective climate protection, the Lufthansa Group is focusing in particular on accelerated fleet modernization, the continuous optimization of flight operations, the use of SAF and offers for private travelers and corporate customers to make air travel or the transport of freight more sustainable.

Background information

SAF quotas of the EU

As part of its "Fit for 55" climate protection program, the EU has decided on mandatory SAF blending quotas that will increase over the years up to 2050. The SAF quota is to be 2 percent from 2025, 6 percent from 2030, 20 percent from 2035 and 70 percent from 2050. For the Lufthansa Group, this will lead to additional costs in the billions in the future.

EU-ETS

In the EU Emissions Trading System (EU ETS) for aviation, CO_2 emissions have been controlled and limited by means of certificate trading since 2012. The Lufthansa Group is subject to this system for all flights within the European Economic Area (EEA). Additional obligations to surrender emission certificates exist under the emissions trading systems of Switzerland (CH-ETS) and the United Kingdom (UK-ETS) for flights between the EEA, Switzerland and the UK.

CORSIA

Under the agreement on climate protection reached by the International Civil Aviation Organization (ICAO) in October 2016 - the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) - growth-related CO_2 emissions in international aviation have been offset by the purchase of certificates since 2021. All emissions from the aviation industry that exceed the CO_2 emissions of the baseline defined by the ICAO are offset. For the years 2024 to 2035, this amounts to 85 percent of the emissions from 2019.

German airline Lufthansa says it would consume half of Germany's electricity if it were to switch to green fuels 2023-09-26 11:25:13.144 GMT

German airline Lufthansa says it would consume half of Germany's electricity if it were to switch to green fuels

By Prarthana Prakash

(FORTUNE)

German airline Lufthansa has tried to make a sustainability push in recent years— the introduction of "Green Fares" earlier this year is one example, wherein customers can opt for fares in which the carbon off-setting feature is already built in. The company also says it's among the biggest buyers of sustainable aviation fuel (SAF), which are alternatives to traditional fossil fuels.

But while Lufthansa has tried to do its bit to adopt sustainable practices, the company's chief has said that switching the airline to green fuels like e-kerosene could come at a big price—half of Germany's electricity supply.

"We would need around half of Germany's electricity to create enough of the fuels," Lufthansa's Carsten Spohr said at an aviation conference Monday, Bloomberg reported. He added that while green fuels made using renewable energy sources would help Lufthansa decarbonize its fuel consumption, the likelihood of having enough electricity to produce such materials was low.

"I don't think Mr. Habeck is going to give me that," Spohr said at the Hamburg conference, referring to German energy minister Robert Habeck.

Industry search for alternatives

Comments from the chief of Germany's biggest airline come as the aviation industry looks for alternatives to high carbon-emitting sources that have traditionally been used by airlines. SAFs offer a path to achieving this as they are biofuels manufactured with a lower carbon footprint. Green kerosene, or e-kerosene, is a type of SAF made from CO2 and water, but requires copious amounts of renewable electricity.

The high demand and need for copious amounts of energy have made SAFs expensive—aviation industry leaders have wrestled with the trade-off that transitioning to such fuel sources would create as it would hike the price of air travel for customers.

But studies have shown the potential impact that synthetic fuels like e-kerosene could have—in Europe alone, this type of fuel could save millions of tons of CO2 emissions by 2030.

Industry executives like Spohr have recognized that such fuel sources are the way forward to decarbonize aviation. But at the same time, he has pushed back against European Union quotas on SAFs that could mandate targets for airlines on their use of cleaner fuel options.

"From today's point of view, it won't work to have even the availability of the quantities that are demanded of us, not to mention the high costs that in the end the passenger will have to bear," Spohr said during a press briefing earlier this month, Reuters reported.

He has also emphasized how capacity is one of the key constraints when it comes to scaling up the use of greener fuel alternatives.

"If the Lufthansa Group were to use all the SAF currently available, it would only be able to fly for just under two weeks. A market ramp-up, higher availability and associated lower prices are urgently needed to enable greater use of SAF," a Lufthansa spokesperson told Fortune in an emailed statement.

Even still, Lufthansa is ahead of the curve when it comes to SAF use—globally, only about 0.1% of airlines' fuel comes from SAFs, while that same ratio is about 0.2% for Lufthansa.

"The use of SAF is still at the beginning of market scaling, and the supply volumes available today and the share of SAF in the Lufthansa Group's total fuel consumption are correspondingly small," the spokesperson said. "The Lufthansa Group does everything in its power to reduce the environmental impact of flying."

This story was originally featured on Fortune.com

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To view this story in Bloomberg click here: https://blinks.bloomberg.com/news/stories/S1LBQ1Y2NTOG



Problems Plague BEVs Despite Traditional OEMs Leveling Playing Field with Tesla, J.D. Power Finds

Ram Ranks Highest Overall in Initial Quality Study; Porsche Ranks Highest among Premium Brands

TROY, Mich.: 27 June 2024 — In its inaugural year incorporating franchise dealership repair visits with the Voice of the Customer (VOC) data to create a more expansive metric for problems per 100 vehicles (PP100), the J.D. Power 2024 U.S. Initial Quality StudySM (IQS), released today, the industry average is 195 PP100. Mass market brands, with a combined average of 181 PP100, outperform the industry average. Meanwhile, premium brands—often including more complicated systems and thus more reliance on connectivity—average 232 PP100. A lower score reflects higher vehicle quality.

"It is not surprising that the introduction of new technology has challenged manufacturers to maintain vehicle quality," said **Frank Hanley, senior director of auto benchmarking at J.D. Power.** "However, the industry can take solace in the fact that some problem areas such as voice recognition and parking cameras are seen as less problematic now than they were a year ago."

Proponents of battery electric vehicles (BEVs) often state these vehicles should be less problematic and require fewer repairs than gas-powered vehicles since they have fewer parts and systems. However, newly incorporated repair data shows BEVs, as well as plug-in hybrid electric vehicles (PHEVs), require more repairs than gas-powered vehicles in all repair categories. "Owners of cutting edge, tech-filled BEVs and PHEVs are experiencing problems that are of a severity level high enough for them to take their new vehicle into the dealership at a rate three times higher than that of gas-powered vehicle owners," Hanley said.

Gas- and diesel-powered vehicles average 180 PP100 this year, while BEVs are 86 points higher at 266 PP100. While there are no notable improvements in BEV quality this year, the gap between Tesla's BEV quality and that of traditional OEMs' BEV quality has closed, with both at 266 PP100. In the past, Tesla has performed better, but that is not the case this year and the removal of traditional feature controls, such as turn signals and wiper stalks, has not been well received by Tesla customers.

Following are key findings of the 2024 study:

- Frustration rising from false warnings: Often, owners don't understand what warnings mean. For instance, rear seat reminder technology, designed to help vehicle owners avoid inadvertently leaving a child or pet in the rear seat when exiting the vehicle, contributes 1.7 PP100 across the industry. Some mistakenly perceive it signals an unbuckled seat belt or cite the warning goes off when no one is present in the rear seat. Furthermore, advanced driver assistance systems, intended to save lives and reduce injuries, are irritating vehicle owners with inaccurate and annoying alerts from rear cross traffic warning and reverse automatic emergency braking features, a newly added feature to the survey this year.
- Owners want to cut the cord: Problems with Android Auto and Apple CarPlay persist as the feature remains one of the top 10 problems. Customers most frequently experience difficulties connecting to their vehicle or losing connection. More than 50% of Apple users and 42% of Samsung users access their respective feature every time they drive, illustrating that customers want their smartphone experience brought into the vehicle and also desire the feature to be integrated wirelessly.

- In-vehicle controls are out of control: Features, controls and displays is the second most problematic category in the study, slightly better than only the notoriously issue-prone infotainment category. From such seemingly simple functions like windshield wipers and rear-view mirror to the more intricate operation of an OEM smartphone application, this category is particularly troublesome in EVs. The PP100 incidence in this category is more than 30% higher in EVs than in gas-powered vehicles. This is exacerbated by Tesla's recent switch to steering wheel-mounted buttons for horn and turn signal functions, a change not well received by owners.
- **One problem area that stinks:** While, figuratively, all vehicle problems stink, there is one problem that is increasingly prevalent: unpleasant interior smell. This issue has worsened the most from 2023, with every brand except Kia and Nissan having an increase in unpleasant interior smell problems. Problem odors are described by owners to be emanating from their vehicle's heating, ventilating and air conditioning systems.

The U.S. Initial Quality Study, now in its 38th year, is based this year on responses from 99,144 purchasers and lessees of new 2024 model-year vehicles who were surveyed after 90 days of ownership. For the first time, the study additionally incorporates repair visit data based on hundreds of thousands of real-world events reported to franchised new-vehicle dealers. The methodology for this year's IQS was enhanced to unite newly acquired, state-of-the-art vehicle repair data with traditional J.D. Power VOC data while fielding continuously year-round. This enhanced IQS data allows automakers the ability to quickly identify potential issues before they become bigger problems in the quality landscape.

The study is based on a battery of 227 VOC questions plus relevant repair data, all of which is organized into 10 vehicle categories: infotainment; features, controls and displays; exterior; driving assistance; interior; powertrain; seats; driving experience; climate; and unspecified (unique to repair). The study is designed to provide manufacturers with information to facilitate the identification of problems and to drive product improvement. The study was fielded from July 2023 through May 2024.

Highest-Ranking Brands and Models

Ram is the highest-ranking brand overall in initial quality with a score of 149 PP100. Among mass market brands, **Chevrolet** (160 PP100) ranks second and **Hyundai** (162 PP100) ranks third.

Among premium brands, **Porsche** ranks highest with a score of 172 PP100. **Lexus** (174 PP100) ranks second and **Genesis** (184 PP100) ranks third.

The parent corporation receiving the most model-level awards is **General Motors Company** (six awards), followed by **Hyundai Motor Group** and **Toyota Motor Corporation**, each with four awards. Among brands, **Chevrolet** receives the most segment awards (four), followed by **Lexus** (three).

- General Motors Company models that rank highest in their respective segment are Cadillac XT5, Cadillac XT6, Chevrolet Equinox, Chevrolet Silverado HD, Chevrolet Tahoe and Chevrolet Traverse.
- Hyundai Motor Group models that rank highest in their respective segment are **Genesis G80**, **Hyundai Santa Cruz**, **Kia Carnival** and **Kia Forte**.
- Toyota Motor Corporation models that rank highest in their respective segment are Lexus IS, Lexus LC, Lexus UX and Toyota Camry.
- Toyota Motor Corporation has the highest-ranking model overall, the **Lexus LC**, with 106 PP100.

Plant Quality Awards

Toyota Motor Corporation's Takaoka 2, Japan, plant, which manufactures the Toyota RAV4 and Toyota Venza, receives the Platinum Plant Quality Award. Plant quality awards are based solely on defects and malfunctions and exclude design-related problems and repair incidents.

Gold Plant Quality Awards for North/South America, in a tie, go to Honda Motor Company's Alliston 2 plant in Ontario, Canada, which produces the Honda CR-V, and Toyota Motor Corporation's Cambridge South plant in Ontario, Canada, which produces the Lexus RX. BMW AG's plant in Born, Netherlands, which produces the MINI Cooper and MINI Countryman, receives the Gold Plant Quality Award for Europe and Africa.

For more information about the U.S. Initial Quality Study, visit <u>https://www.jdpower.com/business/us-initial-quality-study-iqs</u>.

See the online press release at http://www.jdpower.com/pr-id/2024061.

About J.D. Power

J.D. Power is a global leader in automotive data and analytics, and provides industry intelligence, consumer insights and advisory solutions to the automotive industry and selected non-automotive industries. J.D. Power leverages its extensive proprietary datasets and software capabilities combined with advanced analytics and artificial intelligence tools to help its clients optimize business performance.

J.D. Power was founded in 1968 and has offices in North America, Europe and Asia Pacific. To learn more about the company's business offerings, visit <u>JDPower.com/business</u>. The J.D. Power auto-shopping tool can be found at <u>JDPower.com</u>.

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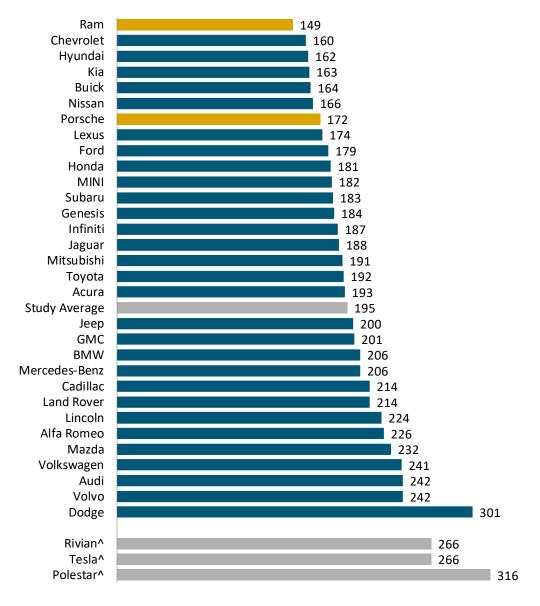
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About J.D. Power and Advertising/Promotional Rules: <u>http://www.jdpower.com/business/about-us/press-release-info</u>

NOTE: Five charts follow.

Brand Ranking

Problems per 100 Vehicles (PP100)



Ram ranks highest overall and among mass market brands, and is noted by a gold bar. Porsche ranks highest among premium brands, and is noted by a gold bar. Note: ^Brand is not rank eligible because it does not meet study award criteria.

Source: J.D. Power 2024 U.S. Initial Quality StudySM (IQS)

Highest Initial Quality Model

Lexus LC

Top Three Models per Segment

Car Segments

Small Premium Car*

Highest Ranked: BMW 2 Series

Midsize Car

Highest Ranked: Toyota Camry Nissan Altima Chevrolet Malibu

Compact Car Highest Ranked: Kia Forte Nissan Sentra Hyundai Elantra

Compact Premium Car

Highest Ranked: Lexus IS Cadillac CT4 BMW 3 Series Premium Sporty Car

Highest Ranked: Lexus LC Porsche 911 Chevrolet Corvette

Upper Midsize Premium Car*

Highest Ranked: Genesis G80 BMW 5 Series

*No other model in this segment performs at or above segment average.

Models must have sufficient sample to be considered for the highest initial quality model award. Models are considered from all segments regardless of segment eligibility.

There must be at least three models with 80% of market sales or four models with 67% of the market sales in any given award segment for an award to be presented. In the Small Car, Compact Sporty Car, Midsize Sporty Car, Midsize Premium Car, Large Car and Large Premium Car segments, these criteria were not met, thus no awards have been issued.

Source: J.D. Power 2024 U.S. Initial Quality StudySM (IQS)

Top Three Models per Segment

SUV Segments

Small SUV

Highest Ranked: Ford Bronco Sport Kia Seltos Kia Soul

Small Premium SUV*

Highest Ranked: Lexus UX Audi Q3

Compact SUV

Highest Ranked: Chevrolet Equinox GMC Terrain Hyundai Tucson

Compact Premium SUV

Highest Ranked: BMW X4 Alfa Romeo Stelvio Porsche Macan

Midsize SUV

Highest Ranked: Nissan Murano

Chevrolet Blazer Ford Edge Midsize Premium SUV*

Highest Ranked: Cadillac XT5 Lexus RX

Upper Midsize SUV

Highest Ranked: Chevrolet Traverse Ford Explorer Kia Telluride

Upper Midsize Premium SUV

Highest Ranked: Cadillac XT6 Porsche Cayenne Genesis GV80

Large SUV*

Highest Ranked: Chevrolet Tahoe Chevrolet Suburban

Large Premium SUV

Highest Ranked: Infiniti QX80 Cadillac Escalade Land Rover Range Rover

*No other model in this segment performs at or above segment average.

Models must have sufficient sample to be considered for the highest initial quality model award. Models are considered from all segments regardless of segment eligibility.

There must be at least three models with 80% of market sales or four models with 67% of the market sales in any given award segment for an award to be presented. In the Small Car, Compact Sporty Car, Midsize Sporty Car, Midsize Premium Car, Large Car and Large Premium Car segments, these criteria were not met, thus no awards have been issued.

Source: J.D. Power 2024 U.S. Initial Quality StudySM (IQS)

Top Three Models per Segment

Van and Pickup Segments

Minivan*

Highest Ranked: Kia Carnival

Midsize Pickup

Highest Ranked: Hyundai Santa Cruz Ford Maverick Nissan Frontier

Large Light Duty Pickup*

Highest Ranked: Ram 1500

Large Heavy Duty Pickup

Highest Ranked: Chevrolet Silverado HD Ford Super Duty Ram 2500/3500

*No other model in this segment performs at or above segment average.

Models must have sufficient sample to be considered for the highest initial quality model award. Models are considered from all segments regardless of segment eligibility.

There must be at least three models with 80% of market sales or four models with 67% of the market sales in any given award segment for an award to be presented. In the Small Car, Compact Sporty Car, Midsize Sporty Car, Midsize Premium Car, Large Car and Large Premium Car segments, these criteria were not met, thus no awards have been issued.

Source: J.D. Power 2024 U.S. Initial Quality StudySM (IQS)

Plant Assembly Line Quality Award Recipients

Based on Models Produced for U.S. Market

	Problems per 1 (Defects/Malfun		Model(s) Produced at Plant
Platinum Award	1		
Toyota Motor Corporation—Taka	aoka 2, Japan	16	Toyota RAV4, Venza
North/South America			
Honda Motor Company—Alliston 2, Ontario,	Canada (HCM) <i>Gold</i>	24	Honda CR-V
Toyota Motor Corporation—Cambridge South, Or	ntario, Canada (TMMC) <i>Gold</i>	24	Lexus RX
Toyota Motor Corporation—Georgetown	3, KY (TMMK) Bronze	25	Lexus ES
Asia Pacific			
Toyota Motor Corporation—Motomachi 2,	Japan Silver	19	Lexus LC
Nissan Motor Co, Ltd.—Tochigi 1, J	apan <i>Bronze</i>	21	Infiniti Q50, Nissan Z
Europe and Africa			
BMW AG—Born, Neth	erlands Gold	27	MINI Cooper, Countryman
Porsche AG—Osnabrück, Ge	ermany Silver	28	Porsche 718
Porsche AG—Leipzig, Geri	many <i>Bronze</i>	30	Porsche Macan

Source: J.D. Power 2024 U.S. Initial Quality StudySM (IQS)

The Government and the parties in the Green Tripartite enter into historic Agreement on a Green Denmark

24-06-2024 News

The Government and the parties in the green tripartite party have agreed on a long-term basis for the restructuring and conversion of Denmark's land and of food and agricultural production. The efforts in the agreement will reduce the sector's emissions of greenhouse gases and contribute to meeting Denmark's 2030 climate goals as well as ensuring better conditions for nature, biodiversity, the aquatic environment and drinking water. This will be done, among other things, through a historic land conversion and a tax on emissions from livestock. At the same time, the agreement sets the direction for a more sustainable, high-tech and area-efficient agriculture with competitiveness and good jobs throughout the country.



Kristensen, at the podium at the presentation of the Agreement on a Green Denmark.

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The Danish landscape is facing major changes after the government and the parties in the green tripartite – the Danish Agriculture and Food Council, the Danish Society for Nature Conservation, the Danish Food Federation (NNF), the Danish Metal Workers' Federation, the Confederation of Danish Industry and Local Government Denmark – have agreed on an agreement on a green Denmark. The agreement shows the way to making Denmark a modern agricultural country and provides concrete answers to agriculture's climate and nature challenges. The parties agree on a historic reorganisation of the Danish area that provides more space for nature and better conditions for biodiversity and drinking water protection.

At the same time, the parties agree that Denmark must continue to have a strong and competitive agricultural and food sector in the future. The agreement accelerates the green development of Danish agriculture even further, taking into account that Denmark will continue to have a competitive industry with attractive business potentials and jobs.

Chairman of the Green Tripartite Henrik Dam Kristensen says:

"I would like to say a big thank you to the parties, who have all shown the willingness to find the good compromise with the right balances. In Denmark, we have a good and strong tradition of solving major challenges together, and the green tripartite is now writing itself into that history. The

agreement will make Denmark an international pioneer for the green land management of the future. We can all be proud of that."

With the agreement, the parties agree that a CO₂e-tax on emissions from livestock. A tax of DKK 300 per tonne of CO is introduced₂e in 2030 increasing to DKK 750 per tonne of CO₂e in 2035 with a basic deduction of 60 per cent. The effective tax will thus amount to DKK 120 per tonne of CO₂e in 2030 increasing to DKK 300 per tonne of CO₂e in 2035. In addition, more than DKK 30 billion will be allocated for the set-aside of a total of approx. 140,000 hectares of carbon-rich lowland soils, including marginal areas, as well as the restoration of 250,000 hectares of forest. In addition, a subsidy scheme of a total of just over DKK 10 billion will be set up up up towards 2045 for the storage of biochar produced by pyrolysis.

The partners also agree that as part of the transformation of the agricultural and food industry, there is also a need to speed up the development and maturation of new climate technologies and initiatives – and that the reduction effects of these must be documented as soon as possible so that they can be counted in the national emission inventory.

Overall, the efforts in the agreement are estimated to reduce Danish emissions by 1.8 million tonnes of CO₂e in 2030. The agreement thus closes the gap in relation to the 2030 climate goal.

Minister for Economic Affairs Stephanie Lose says:

"With the agreement in the Green Tripartite, we set a clear green direction for the future of Danish agriculture. We create a framework for more sustainable, high-tech and efficient agricultural production, which ensures a green transition. It has not been an easy task, but I am proud that we are once again showing that we in Denmark can sit down together and listen to each other and together find solutions to the great challenges for our good country. I would like to thank the parties in the Green Tripartite for their hard work, seriousness and trusting cooperation over the past many months. This has created the foundation for us to ultimately succeed in making an agreement that all parties can see themselves in."

With the agreement, the government undertakes to work to implement the elements of the agreement with respect for the balances that these represent. The Government will convene the parties of the Folketing for discussions on this.

The government and the parties in the green tripartite – the Danish Agriculture and Food Council, the Danish Society for Nature Conservation, the Danish Food Federation (NNF), the Danish Metal Workers' Association, the Confederation of Danish Industry and KL – call on all parties in the Danish Parliament to support the agreement and enter into a political agreement that respects the balance sheets of the agreement.

The agreement will create major changes in the industry and in the Danish landscape in the coming years and decades. Among other things, the agreement shows the way to a radical rethinking of the way the Danish land area is managed. The vision is for Denmark to be an international role model for a holistic and multifunctional approach to land management, where consideration for nature, biodiversity and drinking water goes hand in hand with efficient and modern food production.

In order to drive the conversion of the Danish land area, the Danish Green Area Fund is established. The fund must include initiatives such as afforestation, set-aside of peatlands, strategic land acquisition, etc., including with a view to nitrogen reductions. The fund's activities will include initiatives worth approximately DKK 40 billion.

The parties agree that the restructuring requires strong local anchoring, ownership and holistic thinking. Therefore, a new local organisation will be established with the water catchment steering

groups in a strengthened role, and where the municipalities will be responsible for planning and implementation.

The agreement also sets out the framework and principles for the efforts that will bring Denmark to the goal of fulfilling the EU Water Framework Directive, so that the Danish coastal waters are restored to good ecological status. The agreement represents a paradigm shift in nitrogen efforts, where regulation is combined with targeted land conversion, supported conversion and modern land management.

Minister for Foreign Affairs Lars Løkke Rasmussen says:

"With today's agreement, we are investing billions in the largest transformation of the Danish landscape in recent times. We create much more nature, a cleaner aquatic environment, raise much more forest and make it possible to develop agriculture for the green competition of the future. At the same time, we will be the first country in the world with a CO2 tax on agriculture. This is another example of what we can achieve when we make policy across the middle."

Minister for the Environment Magnus Heunicke says:

"With this agreement, we are drawing a brand new green map of Denmark. Today, 5 out of 109 water bodies are in good ecological condition, which means that life thrives below sea level. With this agreement, we have a roadmap for how all 109 water bodies will be well. We are setting up an area fund of DKK 40 billion to ensure afforestation, the establishment of wetlands and the purchase of land. At the same time, we are making a paradigm shift in nitrogen regulation, where we are significantly increasing the regulation on fields that have not already been taken out of operation. We need to get the fish back in our fjords. We now have a clear plan for that."

Minister of Taxation Jeppe Bruus says:

"As Minister of Taxation, I am proud that the green tripartite today presents an agreement that includes an ambitious CO_2e -tax on Danish agriculture. With the agreement, we will reach our climate goals in 2030 and we will take a big step closer to becoming climate neutral by 2045. We will be the first country in the world to introduce real CO_2e -tax on agriculture. Other countries will be inspired by this. The agreement shows how much we can achieve when we sit down together across party colours and interests to find common solutions to one of the greatest challenges of our time."

Minister for Food, Agriculture and Fisheries Jacob Jensen says:

"Today we are writing a new chapter in Danish agricultural history. Denmark is a proud foodproducing nation, where we have some of the world's most skilled farmers, whom we now ensure a stable framework for continuing to produce world-class food for many years into the future. With the agreement, we create growth and jobs throughout the country, while taking good care of our climate, environment and nature. At the same time, we invest in the young, the farmers of the future, who must take the torch further and ensure a continued development – and not the dismantling – of Danish food production. Because the world lacks food and climate solutions, and Danish agriculture can contribute to both of these things that can be helped along the way by this agreement."

Minister for Climate, Energy and Utilities Lars Aagaard says:

"With the agreement, we are changing the map of Denmark. We are creating a greener country with more climate-friendly agriculture, more forests, more nature and a cleaner aquatic environment. And we do it in a Danish way, where all parties have bent towards each other and found long-term solutions. Agriculture is Denmark's largest CO2 emitter. It cannot continue. Therefore, we are the first country in the world to introduce a climate tax and speed up green initiatives so that we are more confident in achieving the 2030 goal. Now there is a lot of work to be done to realize the agreement. Agriculture must contribute even to the green future. We have now created all the conditions for this, and I hope that the Danish Parliament will support the ambitious solutions and balances that the Green Tripartite has agreed on."

Chairman of the Danish Agriculture and Food Council, Søren Søndergaard, says:

"It is an agreement that is epoch-making for Denmark's climate efforts and for our common nature. It sets the framework for Danish agriculture and Denmark's food production for many years to come. With us at the negotiating table, we have ensured that it is still possible to develop the industry rather than liquidate it, says Søren Søndergaard, chairman of the Danish Agriculture and Food Council.

President of the Danish Society for Nature Conservation Maria Reumert Gjerding says: "It is a historic compromise that sets out a completely new direction for land use in Denmark. The agreement will ensure significantly more forest, large wetlands and much more protected nature in Denmark. We will have integrated our nature, nitrogen and climate efforts, and with a large area fund, we now have a unique opportunity to start converting nitrogen-sensitive agricultural areas to nature, forests and wetlands and save our gasping aquatic environment and fjords. Despite very large disagreements, we have also succeeded in reaching a compromise on a CO2 tax, which lays the tracks for a converted food industry – also on the other side of 2030."

Chairman of the Danish Food Federation (NNF) Ole Wehlast says:

"We have reached an agreement that, on the one hand, ensures that Denmark achieves its climate goals and, on the other hand, averts the loss of raw materials that many feared as a consequence of a climate tax. There are already plenty of challenges for the Danish food industry and the Danish food workers. The preservation of Danish jobs has been the most important thing for me throughout the process. Therefore, I am also pleased that some solutions have been found that avert the risk of losing thousands of Danish food jobs."

Chairman of the Danish Metal Workers' Union, Claus Jensen, says:

"Dansk Metal has worked to ensure that we have a planet that we can pass on in proper condition to our children and grandchildren, and that we rectify the environmental disaster that has destroyed life in the sea and in our fjords. It has also been crucial for us to avoid unnecessary job losses, especially in the peripheral areas. In the near future, it will be important that the industry lends a helping hand so that we can strengthen agriculture and the food industry technologically so that they can make the green transition."

Political Director of the Confederation of Danish Industry Morten Høyer says:

"It is nothing less than a historic agreement that stops years of political battles over agriculture, because there is now a really ambitious and long-term plan for the development of both climate, environment, nature and agriculture, which will change the map of Denmark. Nature must take up more space, our food production must be sustainable and competitive, and we are planning to introduce the world's first CO2 tax on agriculture. All of this will add up to a significant boost in the green transition, and we must show the outside world that it can be done."

Chairman of the National Association of Local Authorities Martin Damm says:

"It is a very ambitious agreement that we have now entered into on the green transition. In the municipalities, we are ready to take the lead in reorganizing our areas with a focus on nature, the whole and local cooperation. The municipalities know the landowners and the local conditions best, and we are therefore pleased that it is also the municipalities that will be responsible for the local transition, so that we ensure that there is room for both agriculture and nature. It is major changes to our country that are being proposed, and the agreement will change the Danish areas for decades to come."

Facts: Main content of the Agreement on a Green Denmark

- Greenhouse gas emission reductions of 1.8 million tonnes of CO₂e by 2030 and a potential for up to 2.6 million tonnes.
- A CO₂e-tax on emissions from livestock. A tax of DKK 300 per tonne of CO is introduced₂e in 2030 increasing to DKK 750 per tonne of CO₂e in 2035 with a basic deduction of 60 per cent. The effective tax will thus amount to DKK 120 per tonne in 2030, increasing to DKK 300 per tonne in 2035.
- Return of proceeds to the industry: The proceeds from the livestock tax in 2030-31 will be returned as a transition support pool to support the industry's green transition. Handling of the proceeds will be revisited in 2032.
- Establishment of Denmark's Green Area Fund, which will include activities worth approximately DKK 40 billion.
- Erection of 250,000 hectares of forest (corresponding to an area the size of Lolland-Falster and Bornholm).
- Set-aside of 140,000 hectares of carbon-containing lowland soils including marginal areas.
- A goal of at least 20 per cent protected nature. The erection of 80,000 hectares of private untouched forest, 20,000 hectares of state forest and the set-aside of lowland soils will significantly increase the extent of protected nature.
- A subsidy scheme totalling just over DKK 10 billion up to 2045 for the storage of biochar produced by pyrolysis.
- Paradigm shift in nitrogen efforts, where land conversion is the main engine for achieving the goals of the EU Water Framework Directive.
- Fee reduction of slaughterhouses for DKK 45 million annually with effect from 2029 and allocation of a pool for upskilling of a total of DKK 100 million over the period 2027-30.



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IFIC Monthly Investment Fund Statistics – May 2024 Mutual fund and exchange-traded fund (ETF) assets and sales

June 24, 2024 (Toronto) – The Investment Funds Institute of Canada (IFIC) today announced investment fund net sales and net assets for May 2024.

Mutual fund assets totalled \$2.058 trillion at the end of May, up by \$44.4 billion or 2.2 per cent since April. Mutual fund net redemptions were \$1.8 billion in May.

ETF assets totalled \$429.2 billion at the end of May, up by \$15.6 billion or 3.8 per cent since April. ETF net sales were \$4.4 billion in May.

May insights

- Mutual fund total assets reached their second highest monthly level ever (the highest level was in December 2021). The increase in assets was driven by positive market performance.
- For mutual funds, bond funds saw the highest net sales at \$1.35 billion, while equity funds had net redemptions of \$920 million.
- Money market mutual fund net sales turned positive after three consecutive months, with just over half of all money market funds experiencing positive inflows. Despite this positive trend, year-to-date net sales are 92 per cent lower than the same period in 2023.
- Year-to-date ETF assets grew by \$47.2 billion or 12.4 per cent, which is close to double the growth in absolute terms compared to 2023.
- For ETFs, equity funds led with net sales of \$2.8 billion, while bond funds also saw substantial inflows of \$1.3 billion.

Mutual fund net sales/net redemptions (\$ millions) *

Asset class	May 2024	Apr 2024	May 2023	YTD 2024	YTD 2023
Long-term funds					
Balanced	(3,334)	(3 <i>,</i> 499)	(3,807)	(14,907)	(17,258)
Equity	(920)	(14)	(2,173)	355	(7,245)
Bond	1,346	366	639	8,910	7,809
Specialty	623	720	295	3,310	1,750
Total long-term funds	(2,285)	(2,428)	(5,047)	(2,332)	(14,944)
Total money market funds	464	(281)	1,249	524	6,358
Total	(1,821)	(2,708)	(3,799)	(1,808)	(8,586)

Mutual fund net assets (\$ billions) *

Asset class	May 2024	Apr 2024	May 2023	Dec 2023
Long-term funds				
Balanced	934.3	917.5	889.5	904.4

Equity	786.5	764.8	675.8	714.4
Bond	252.3	248.0	234.2	242.3
Specialty	31.7	30.7	24.4	27.0
Total long-term funds	2,004.8	1,961.0	1,823.9	1,888.1
Total money market funds	52.7	52.1	41.5	51.0
Total	2,057.5	2,013.1	1,865.3	1,939.1

* See below for important information about this data.

ETF net sales/net redemptions (\$ millions) *

Asset class	May 2024	Apr 2024	May 2023	YTD 2024	YTD 2023
Long-term funds					
Balanced	243	362	150	1,884	678
Equity	2,788	4,032	559	16,171	4,505
Bond	1,287	1,734	836	5,251	4,281
Specialty	22	82	(16)	(331)	851
Total long-term funds	4,339	6,209	1,529	22,976	10,315
Total money market funds	86	(747)	819	(467)	4,413
Total	4,425	5,462	2,348	22,509	14,728

ETF net assets (\$ billions) *

Asset class	May 2024	Apr 2024	May 2023	Dec 2023
Long-term funds				
Balanced	18.0	17.3	13.2	15.1
Equity	270.5	259.4	208.4	232.5
Bond	98.4	95.9	84.8	94.6
Specialty	17.3	16.1	11.5	14.4
Total long-term funds	404.2	388.7	317.9	356.6
Total money market funds	25.0	24.9	20.6	25.3
Total	429.2	413.5	338.5	382.0

* See below for important information about data.

IFIC direct survey data (which accounts for approximately 87 per cent of total mutual fund industry assets and approximately 80 per cent of total ETF industry assets) is complemented by estimated data to provide comprehensive industry totals.

IFIC makes every effort to verify the accuracy, currency, and completeness of the information, however, IFIC does not guarantee, warrant, represent or undertake that the information provided is correct, accurate or current.

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* Important information about investment fund data

- 1. Mutual fund data is adjusted to remove double counting arising from mutual funds that invest in other mutual funds.
- Starting with January 2022 data, ETF data is adjusted to remove double counting arising from Canadian-listed ETFs that invest in units of other Canadian-listed ETFs. Any references to IFIC ETF assets and sales figures prior to 2022 data should indicate that the data has not been adjusted for ETF of ETF double counting.
- 3. The balanced funds category includes funds that invest directly in a mix of stocks and bonds or obtain exposure through investing in other funds.
- 4. Mutual fund data reflects the investment activity of Canadian retail investors.
- 5. ETF data reflects the investment activity of Canadian retail and institutional investors.

About IFIC

The Investment Funds Institute of Canada is the voice of Canada's investment funds industry. IFIC brings together 150 organizations, including fund managers, distributors and industry service organizations to foster a strong, stable investment sector where investors can realize their financial goals. By connecting Canada's savers to Canada's economy, our industry contributes significantly to Canadian economic growth and job creation. Learn more about IFIC

For more information

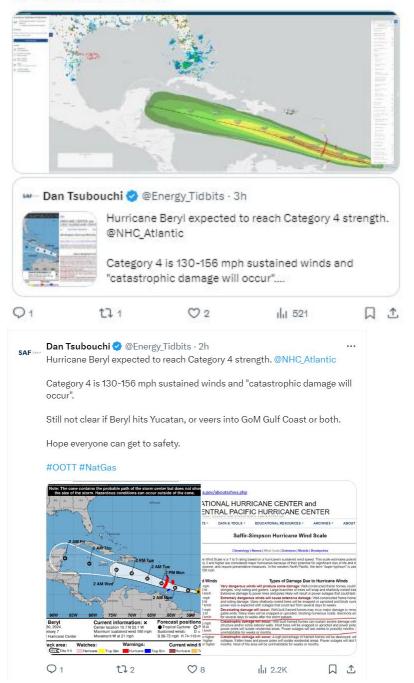
Christine Harminc Senior Manager, Communications and Public Affairs <u>charminc@ific.ca</u> 416-309-2313 SAF

Dan Tsubouchi 🤣 @Energy_Tidbits - 11m Will Hurricane Beryl re-emerge in the GoM

Reminder the EIA has a great live hurricane tracking map #Oil #NatGas #LNG wells, refineries, infrastructure etc in the path of any Tropical Storm or Hurricane.

#OOTT

atlas.eia.gov/apps/hurricane...



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Dan Tsubouchi ② @Energy_Tidbits · 12h 2nd mth of contraction after 2 mths of expansion.

SAF

China official National Bureau of Statistics Manufacturing PMI out.

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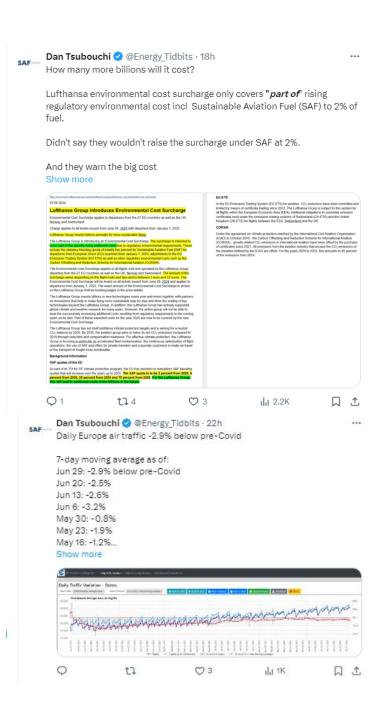
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SAF Dan Tsubouchi 🤡 @Energy_Tidbits · 14h ···· Is this partly why 46% of US EV owners plan to switch back to ICE? per @McKinsey.

@JDPower BEV & PHEV owners are 3x higher than ICE owners to have problem of a severity level high enough to have to take their car to the dealer.



#OOTT



Dan Tsubouchi 🤣 @Energy_Tidbits · 22h

¹ 1st weekly increase in US national average gasoline prices in a month.

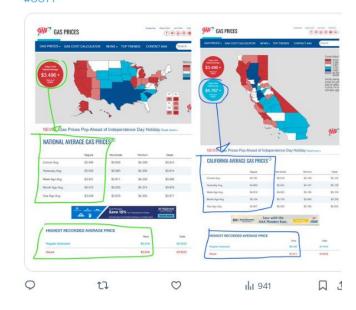
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AAA National average prices +0.05 WoW to 3.50 on June 28, down 0.08 MoM and down 0.06YoY.

California at \$4.80 on June 29, down \$0.01 WoW, down \$0.30 MoM & down \$0.03 YoY.

Thx @AAAnews #OOTT

SAF



SAF Dan Tsubouchi 🤡 @Energy_Tidbits · 22h Only 1 data point but a big drop in Vortexa oil floating storage est -23.81 mmb WoW to 73.83 mmb at Jun 28.

However, it's been negative as 4 of prior 5 wks were >90 mmb & 1st >90 mmb wks since Aug 2023 ie. before Saudi July 2023 cuts kicked in.

Thx @vortexa @business #OOTT

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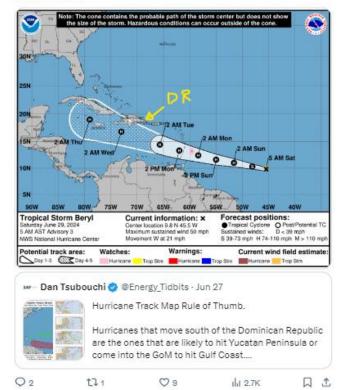
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SAF Dan Tsubouchi 🧭 @Energy_Tidbits - Jun 29

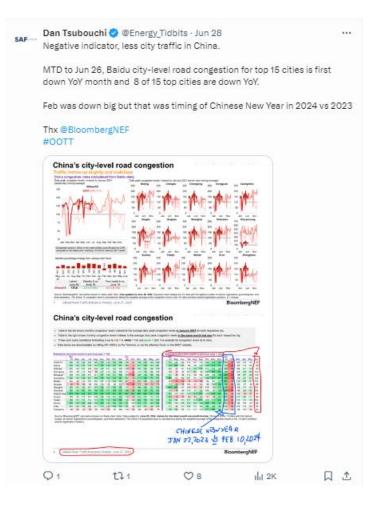
Tropical Storm Beryl, forecast to be Hurricane strength on Sunday, still on path south of Dominican Republic.

See 906/27/24 tweet. Good rule of thumb. Hurricanes that go south of Dominican Republic are likely to hit Yucatan Peninsula OR go int GoM Gulf Coast.

#OOTT #NatGas



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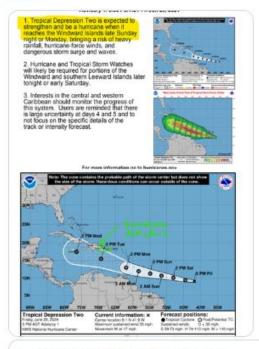


SAF Dan Tsubouchi 💸 @Energy_Tidbits - Jun 28

Expected to reach hurricane strength Sun/Mon & on path south of Dominican Republic.

See 👇 06/27/24 tweet. Good rule of thumb that hurricanes that go south of Dominican Republic are likely to hit Yucatan Peninsula OR go int GoM Gulf Coast.

#OOTT



🗤 – Dan Tsubouchi 🤣 @Energy_Tidbits - Jun 27



Hurricanes that move south of the Dominican Republic are the ones that are likely to hit Yucatan Peninsula or come into the GoM to hit Gulf Coast....

♡6 ili 2.3K 🛛 🕻 Q t]

sAF Dan Tsubouchi 📀 @Energy_Tidbits - Jun 28 321 crack flat WoW at \$24.36 on Jun 28.

WTI was +\$0.81 WoW to \$81.54

No specific #Oil event this week so both traded in a relatively tight range.

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321 cracks at \$24.36 generally aren't high enough to drive up oil.

Thx @business #OOTT



SAF Dan Tsubouchi 🤡 @Energy_Tidbits · 2m

turning point? no longer senior Liberals saying off the record criticism or only speaking on background. rather Former Trudeau minister Catherine McKenna come out of the shadows. "it's time for new ideas, new energy and a new leader" for the Liberals



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SAF Dan Tsubouchi 🤡 @Energy_Tidbits · 3h Govts don't want to admit it BUT

> "the reality is that for quite some time, fossil fuels will be with us, right, especially #NatGas. So that glide path is long. The world and the world economy cannot go cold turkey on this tomorrow." Barclays CEO to @annaedwardsnews

#OOTT

"the reality is that for quite some time, fossil fuels will be with us, right, especially natural gas. So that glide path is long. The world and the world economy cannot go cold turkey on this tomorrow." Barclays CEO



SAF Group created transcript of comments by Barclays CEO C.S. Venkatakrishnan with Bloomberg's Anna Edwards at Bloomberg Sustainable Finance Forum on June 25, 2024. https://www.bloomberg.com/news/videos/2024-06-25/barclays-can-t-go-cold-turkey-on-oil-clients-ceosays-video

Items in "italics" are SAF Group created transcript.\

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Prepared by SAF Group https://safgroup.ca/news-insights/



Dan Tsubouchi 🤣 @Energy_Tidbits · 6h

Jan: \$3.9... Show more

SAF

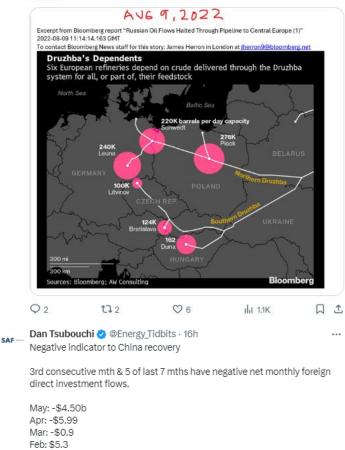
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Was this a UKR reminder they can directly hit Russia #Oil export revenue?

Russia says oil tank hit at Nikolskoye pumping station for Druzhba main oil pipeline.

Druzhba still moving ~200,000 b/d to Eruope

Aug 2022 map from @ja_herron #OOTT



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saF — Dan Tsubouchi 🤣 @Energy_Tidbits · 1h Asia Pacific airlines passenger demand up YoY but still down vs pre-Covid.

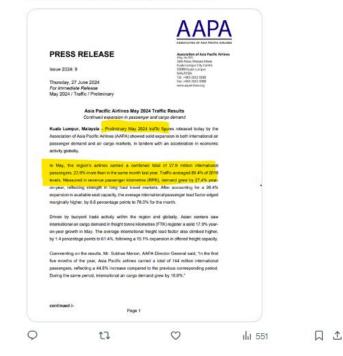
Association of Asia Pacific Airlines (AAPA) international air passenger demand for May.

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+23.9% YoY but still -10.6% vs pre-Covid May 2019.

#OOTT

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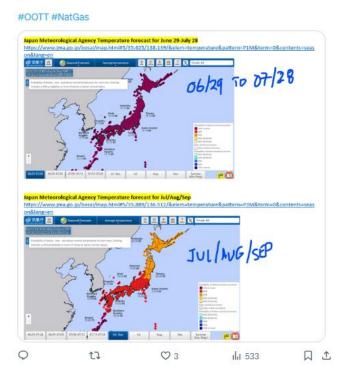


Dan Tsubouchi 🤣 @Energy_Tidbits · 2h

SAF

May not drive up #LNG prices but Japan Meteorological Agency forecasts a hot July and hot Jul/Aug/Sep so should provide near term support for prices.

...



Dan Tsubouchi 🤣 @Energy_Tidbits · 4h

SAF ICYMI, @ENERGY released US #LNG exports -15.1% MoM & -19.0% YoY to 10.1 bcf/d in April.

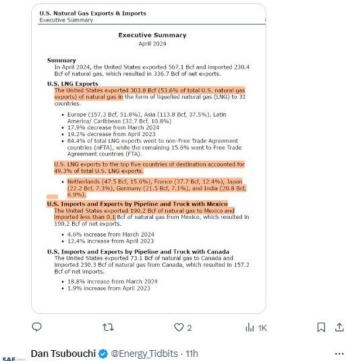
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April was hit by maintenance at 2.1 bcf/d Freeport LNG, which was completed ~May 14.

This is same data as more referenced @EIAgov Natural Gas Monthly that comes out tomorrow.

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#OOTT
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WOW!

Offshore wind will be expensive electricity.

@andrewrsorkin asks "what has to happen as a result. The [offshore wind] losses are in the billions?" GE Verona CEO " Yes. It starts with price. The reality is that when you think about offshore wind, price is going to have be





Dan Tsubouchi 🤣 @Energy_Tidbits · 12h Al Data Centers 101.

#NatGas will be the 1st call for rapid growth of AI Data center 24/7 power.

"with the amount of power that's going to be needed this decade, gas is going to be important. We'll decarbonize that gas over time with hydrogen

and carbon capture" GE Verona CEO Show more





🚥 – Dan Tsubouchi 🤣 @Energy_Tidbits • Jun 7

Electricity Gap is coming!



" a new data center takes a little over a yr to build, it takes 10 yrs to permit these new #NatGas burning power plants. It takes even longer for Wind & Solar. S...

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SAF Dan

Dan Tsubouchi 🤡 @Energy_Tidbits · 14h Walgreens now down 17% in pre-market

Also "Finalizing significant multiyear footprint optimization program to close certain underperforming U.S. stores"

"Repositioning store footprint for the future, taking action across ~25% of network over three years"



....

SAF

Stock -4% in

Dan Tsubouchi 🤣 @Energy_Tidbits · 14h

Walgreens CEO just now "We continue to face a difficult operating environment, including persistent pressures on the U.S. consumer and the impact of recent marketplace dynamics which have eroded pharmacy margins. Our results and outlook reflect these headwinds..."

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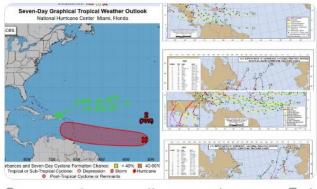
Adjusted operading incor SPS in the third quarter	1. The second	quarter, reflecting an increase of \$0.26. Adjusted ()		
vetail and pharmacy per Net comings in the third reflecting higher operate	ternance, cartly offset by cost savings initiative quarter avere \$344 million compared to not our g income. Adjusted net earnings** were \$545	constant our may been relieved to be used easiest is and improved profitability in the U.S. Healthcare mings of \$118 million in the year-ego quarter, an in million, down 36.5 percent on a constant currency	segment. crease of \$225 million	
which reflects tapping a	MD1 million non-cash impairment of pharmacy MD13 million: a destenant of 26.3 secretal as a	sting loss of \$477 million in the year-ago-quarter, an a loanse intangible assets in Boots UK in the year- constant surrency basis reflecting losset same losse	ago issanter. Adjusted bank mana and adher it S	
WBA third quarter sales reflecting sake growth a	increased 2.6 percent from the year-ago quart cross all argments.	ter tit \$36.4 billion, an intrease of 2.5 percent on a	constant currency basis,	
Overview of Third Que				
antimoting printed instan	s with protectly and working to unlock opportun	s business, stdat phomacy, which is serial to the des for growth. Many of these actors will take the d for the Waigneens that our customers and patient	e. Eucl I ann condidaeri Bhat are	
dynamics which have an and U.R. Healthcare set	oded prameley margine. Our weaths and outlo	cë sifet tese teadetidi, cespte sold performa	nos-in both our international	
Chief Esecutive Officer 1 We continue to face a c	fical operating environment, including person	text pressures on the U.S. consumer and the impa	ct of record marketplace	
quarter of Secsi 2024, w	sich ended May 31, 2024.	is reserve. Inc. (Hercard, HEA) today acrossiced f	mancos results for the wird	
 Simplifying 	and focusing the U.S. Healtho			
 Launching and patient 	U.S. Retail Pharmacy action p t experience across channels	Ian to invest in and deliver an important of the second second second second second second second second second		
 Finalizing U.S. store 		ptimization program to close certa	in underperforming	
Update on strategic revi	ev.			
		sance to \$2.80 to \$2.95 reflecting an-expected U.S. consumer enviro		
Piscal 2024 goldance				
U.S. retail Third quar	environment, and recent pharm			
 Adjusted E 	PS** was \$0.63, down 36.6 pe	ercent on a constant currency basis of from lower sale-leaseback gains		
	-ago quarter which included a	was \$0.40 compared to earnings p non-cash impairment of pharmacy		
Third quarter fearcial A		lenging Environment, Phondes Strategic Update		
June 27, 2024				
	ts Alliance Reports Fiscal 20	24 Third Quarter Results		
	algreens Boots Alliance			
dillo				

SAF

Dan Tsubouchi 🤣 @Energy_Tidbits · 15h Hurricane Track Map Rule of Thumb.

Hurricanes that move south of the Dominican Republic are the ones that are likely to hit Yucatan Peninsula or come into the GoM to hit Gulf Coast.

Last 4 yrs of @NHC_Atlantic track maps 9 are indicative of track maps since 2000. #OOTT #NatGas



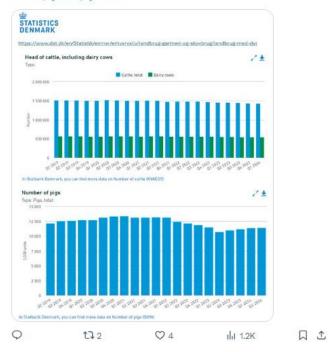
Q2 175 O 13 11 2.9K 口 土 sar ---- Dan Tsubouchi 🤣 @Energy_Tidbits · 23h

Denmark introduces carbon tax on cattle and pigs starting 2030, increasing in 2035.

See 9 Statistics Denmark Q2/24 data says there are 1.430 million cows and 11.449 million sheep in Denmark.

#NetZero #Methane

oem.dk/nyheder/nyheds...



SAF

Dan Tsubouchi 🤡 @Energy_Tidbits · 3h For those, like me, who weren't near their laptop, @ElAgov released #Oil #Gasoline #Distillates inventory as of June 21 at

8:30am MT. Table below compares EIA data vs @business expectations and vs @APlenergy yesterday. #OOTT

Oil/Product	s Inventory Ju	ne 21: EIA, Blo	omberg Survey E	Expectations, API
(million barre	els)	EIA	Expectations	API
Oil		3.59	-2.82	0.91
Gasoline		2.65	-1.50	3.84
Distillates		-0.38	-1.05	-1.18
		5.86	-5.37	3.57
Note: Oil is o	commercial. So	excludes a +1.2	mmb build in SPF	R for the June 21 week
Note: Include	ed in the oil data	a, Cushing had	a 0.23 mmb draw	for June 21 week
Source EIA,	Bloomberg			
Prepared by	SAF Group	ttps://safgroup.c	a/news-insights/	
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SAF Dan Tsubouchi 🤣 @Energy_Tidbits · 8h

Canada Day long weekend travel mess?

WestJet warns "The work stoppage, initiated by AMFA, could occur as early as Friday, June 28 at 5:30 p.m. MT in advance of the long weekend, where more than 70,000 guests per day are booked for travel."

WestJet has received a second strike notification, in the span of just over a week, from the Aircraft Mechanics Fraternal Association (AMFA), the union that represents @WestJet Aircraft Maintenance Engineers and other Tech Ops employees.

Show more			
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SAF Dan Tsubouchi 😒 @Energy_Tidbits · 31m

SAF

US air travel constraints another 3-5 yrs.

".. overall supply chain constraints that are still out there. it's keep a lid on capacity, no question" "i think you're looking at another 3 to 5 years" with supply constraints. Delta CEO Bastian to @Lebeaucarnews @KellyCNBC. Show more



Dan Tsubouchi @ @Energy_Tidbits · Jun 25 Wind & Solar 101.

Big increases in EU wind & solar is reducing demand for power generation from fossil fuels, especially if hot winters like 22/23 & 23/24.

But wind has big losses from winter peak to summer trough vs solar has big gains from winter trough to summer peak in Show more



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Dan Tsubouchi 🤣 @Energy_Tidbits · 3h SAF Worth a listen!

@GrailBio CEO Bob Ragusa on its early cancer screening test.

It really helps that MIT Masters Degree Molecular Biology @JoeSquawk @SquawkCNBC is framing questions.

Agree with Joe that "Everybody should do it"

Cancer sucks but early detection should help.



Dan Tsubouchi 🤣 @Energy_Tidbits - 3h

SAF

Good China insights from @WoodMackenzie Alan Gelder

Chinese distillate demand is not particularly great. so negative indicator for economy today.

But decoupling of China diesel demand vs economy indicator is starting for mid-term as 25% of new heavy duty trucks are LNG fuel so Show more

"Something like 25% of new [China] heavy duty truck purchases are LNG. So in a sense, we are having that move decouples the manufacturing and movement of goods from diesel demand." Alan Gelder, Wood Mackenzie SAF Group created transcript of comments by Alan Gelder (Downstream Global SME, VP Refining, Chemicals & Oil Markets, Commodities Research, Wood Mackenzie) on Gulf Intelligence's Daily Energy Markets June 25 podcast. [LINK] Items in "italics" are SAF Group created transcript. At 10:40 min mark, Gelder "The Chinese economy hasn't materially returned to growth. So there is a degree to which how you measure that. We look at Chinese distillate demand – it's not particularly great, not particularly strong. There is a challenge in that actually there is g akin to what Chine has done around electrification of the passenger car fleet. They are shifting trucks onto LNG. So something like 25% of new heavy duty truck purchases are LNG. So in a sense, we are having that move decouples the manufacturing and movement of goods from diesel demand. Just that activity of changing their fuel type." Prepared by SAF Group https://safgroup.ca/news-insights/

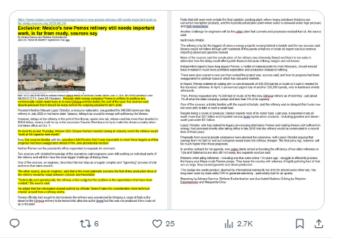
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SAF Dan Tsubouchi @ @Energy_Tidbits · 15h OOPS!

"Pemex is unlikely to produce any commercially viable motor fuels at its new [340,000 b/d] Olmeca refinery before the end of the year, five sources said" @Abeadriana @stefanieyaa

looks nowhere near the 168,000 b/d by yr-end Pemex CEO said last week

Means MEX has more Show more



SAF

Dan Tsubouchi 🤣 @Energy_Tidbits · 17h Big hit to 🙌 #EVs sales if Liberals follow Biden in big tariff hit on Chinesemade EVs imports?

Great @KellyCryderman reminder \P 44,400 such EVs landed in Van in 2023. These aren't BYD, rather are Shanghai-made Teslas.

Can't be good if EV price cutting leader Tesla gets hit Show more

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